

REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION Unclassified		1b. RESTRICTIVE MARKINGS										
2a. SECURITY CLASSIFICATION AUTHORITY		3. DISTRIBUTION/AVAILABILITY OF REPORT Public Release, Unlimited Distribution										
2b. DECLASSIFICATION/DOWNGRADING SCHEDULE												
4. PERFORMING ORGANIZATION REPORT NUMBER(S) DTIC TR-86/7		5. MONITORING ORGANIZATION REPORT NUMBER(S)										
6a. NAME OF PERFORMING ORGANIZATION Defense Technical Information Center	6b. OFFICE SYMBOL (if applicable) DTIC-B	7a. NAME OF MONITORING ORGANIZATION										
6c. ADDRESS (City, State, and ZIP Code) Cameron Station Alexandria, VA 22304-6145		7b. ADDRESS (City, State, and ZIP Code)										
8a. NAME OF FUNDING/SPONSORING ORGANIZATION	8b. OFFICE SYMBOL (if applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER										
Bc. ADDRESS (City, State, and ZIP Code)		10. SOURCE OF FUNDING NUMBERS PROGRAM ELEMENT NO. PROJECT NO. TASK NO. WORK UNIT ACCESSION NO.										
11. TITLE (Include Security Classification) Proceedings of the 1985 Annual DTIC Users Conference												
12. PERSONAL AUTHOR(S) Judith A. Pickeral, Compiler												
13a. TYPE OF REPORT Annual	13b. TIME COVERED FROM _____ TO _____	14. DATE OF REPORT (Year, Month, Day) 23-25 October 1985	15. PAGE COUNT 234									
16. SUPPLEMENTARY NOTATION												
17. COSATI CODES <table border="1"><tr><th>FIELD</th><th>GROUP</th><th>SUB-GROUP</th></tr><tr><td>05</td><td>02</td><td></td></tr><tr><td></td><td></td><td></td></tr></table>		FIELD	GROUP	SUB-GROUP	05	02					18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)	
FIELD	GROUP	SUB-GROUP										
05	02											
19. ABSTRACT (Continue on reverse if necessary and identify by block number) These proceedings consist of transcriptions of presentations made at DTIC's Annual Users Conference, 23-25 October 1985. The presentations included: status report, wrap-up, and question-and-answer sessions provided by DTIC's Directors and Program Managers; reports from the Defense RDT&E Online System (DROLS) User Council; R&D Planning Information Management initiatives; a review of DROS Communications; a New User Orientation introducing relatively new users to DTIC's products and services; DROS Workshops for Dedicated and Dial-up Terminals providing discussions on new system features, training tips, search problems, and questions; panel discussions on procedures and problems associated with the release of Limited Documents; an overview of four DTIC Intern Papers; sessions on How To Promote DTIC's Products and Services to Your User Community; an update on Corporate Planning at DTIC; policy and procedural aspects of Export Control; and the results of a study on Army Use of DTIC.												
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT <input checked="" type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS		21. ABSTRACT SECURITY CLASSIFICATION Unclassified										
22a. NAME OF RESPONSIBLE INDIVIDUAL PAUL KLINEFELTER		22b. TELEPHONE (Include Area Code) 202-274-6434	22c. OFFICE SYMBOL DTIC-B									

DTIC/TR-86/7

AD-A166 250

Defense Logistics Agency

Defense Technical Information Center

Proceedings
of the

1985 Annual DTIC Users Conference

23-25 October 1985

Ramada Hotel

Old Town

Alexandria, Virginia

DTIC ANNUAL USERS CONFERENCE
Ramada Hotel, Old Town, Alexandria, Virginia
23-25 October 1985

Wednesday, 23 October 1985

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	0800-0900	Registration/Coffee	Lobby
1	0900-0915	Opening of the Conference - Mr. Kurt N. Molholm, Administrator, DTIC	Ballroom
3		BG C. C. Adsit, USA, Chief of Staff, Defense Logistics Agency	Ballroom
		Announcements - Mr. Paul Klinefelter, DTIC-V	Ballroom
5	0915-1100	Status Reports from DTIC Directors. Paul Robey, DTIC-DD/William Thompson, DTIC-H/Charles Gould, DTIC-F/Sterling Atchison, DTIC-Z/Richard Douglas, DTIC-E/James Pendegast, DTIC-DF/Ellen McCauley, DTIC-DR	Ballroom
	0945-1000	COFFEE BREAK	
21	1100-1130	R&D Planning Information Management. Earnest W. Deadwyler, Texas Instruments	Ballroom
	1130-1300	LUNCH	
28	1300-1445	DROLS User Council Report. William Hansen, President	Ballroom
	1445-1500	COFFEE BREAK	
47	1500-1630	DROLS Communications. Session on various communication aspects of the online system. Gary Claypoole/Michael Sullivan/Susan Ruddle - DTIC	Washington Ballroom

Wednesday, 23 October 1985
(Continued)

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58	1500-1630 (Continued)	New User Orientation. Sessions introducing relatively new users to the various products and services offered by DTIC. Regina Atkins/Marcia Hanna/Amy Hurd/Annabel Kramer/Tim McCleerey/Jerry Milstead/Brian McCabe - DTIC (Repeated Thursday, 0900)	Lee Ballroom
		DROLS Demonstration Room. A selection of terminals and micros available to demonstrate access to DROLS and communications packages. DTIC personnel will be available to show new system features and assist with problems or questions about communications packages. Room will be open Wednesday afternoon and during the reception, and all day Thursday. Jerry Schrader/Mike Paige - DTIC	Fairfax
	1700-1900	RECEPTION	Cameron
	0830-0900	COFFEE	
76	0900-1015	DROLS Workshop - Dedicated Terminals. Sessions for dedicated online users providing discussions on new system features, training tips, and user search problems and questions. James DePersis/Laurie Lubsen - DTIC (Repeated Thursday, 1315)	Washington Ballroom
82		Limited Documents. Panel discussion on procedures and problems associated with the release of limited documents. Sara Happel, NSWC White Oak/Harold Smith, Grumman/Elaine Burress/Paul Ryan - DTIC (Repeated Thursday, 1030)	Lee Ballroom
58		New User Orientation. (See Wednesday, 1500)	Ramsay
		DROLS Demonstration Room. (See Wednesday, 1500)	Fairfax

Thursday, 24 October 1985
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	1015-1030	COFFEE BREAK BALLOTING FOR USER COUNCIL MEMBERS SUGGESTIONS/QUESTIONS FOR DIRECTORS' REPORT TO BE TURNED IN BY 1030	
76	1030-1145	DROLS Workshop - Dial-Up Terminals. Sessions for dial-up online users providing discussions on new system features, training tips, and user search problems and questions. James DePersis/Laurie Lubsen - DTIC (Repeated Thursday, 1445)	Washington Ballroom
82		Limited Documents. (See Thursday, 0900)	Lee Ballroom
101		Intern Papers. "Flow of STI in Army Research Labs," "User-Defined Searching Requirements for Online Directory of DoD-Sponsored R&D Databases on Gateway," "Current Awareness Information Sheet for Intermediary Users of DROLS," "Learning Theory of Online Information Retrieval System and Applications in Computer Aided Instruction (CAI) for DTIC's CAI Course." Randy Bixby/Georgene Chastain/Roberta Cohen/Marian Delmore/Barbara Lesser/Shirley Witges - DTIC (Repeated Thursday, 1315)	Ramsay
	1145-1315	DROLS Demonstration Room. (See Wednesday, 1500)	Fairfax
		LUNCH	
76	1315-1430	DROLS Workshop - Dedicated Terminals. (See Thursday, 0900)	Washington Ballroom
110		How To Promote DTIC's Products and Services to Your User Community. Sherril Hisaw, Hughes Aircraft/Leona Laughlin, MIT/ Marcia Hanna/Carol Jacobson Barbara Lesser/Linda McGinnis - DTIC (Repeated Thursday, 1445)	Lee Ballroom
101	1315-1430	Intern Papers. (See Thursday, 1015)	Ramsay

Thursday, 24 October 1985
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	1315-1430 (Continued)	DROLS Demonstration Room. (See Wednesday, 1500)	Fairfax
	1430-1445	COFFEE BREAK	
76	1445-1600	DROLS Workshop - Dial-Up Terminals. (See Thursday, 1030)	Washington Ballroom
110		How To Promote DTIC's Products and Services to Your User Community. (See Thursday, 1315)	Lee Ballroom
124		Corporate Planning at DTIC. John Glynn/Russell Parris - DTIC	Ramsay
		DROLS Demonstration Room. (See Wednesday, 1500)	Fairfax

Friday, 25 October 1985

COFFEE

131	0830-0930	Export Control. Frank Sobieszczyk, OUSDRE/Patricia Gaynor, DTIC	Ballroom
151	0930-1000	Army Use of DTIC. Jack Kolb, Army Materiel Command/Robert Hubbard/Kathleen Zaccardo, Presearch, Inc./Zida Thompson, Consolidated Translation Service/Allan Kuhn, DTIC	Ballroom
	1000-1015	COFFEE BREAK	
171	1015-1115	DROLS User Council	Ballroom
173	1115-1200	DTIC Directors	Ballroom
	1200-----	Question and Answer Session; Conference Wrap-up; Close of Conference	Ballroom

APPENDIX A - Slides Used for Export-Control Presentation

APPENDIX B - List of Presenters/Speakers

APPENDIX C - Attendance List

OPENING OF THE CONFERENCE

KURT N. MOLHOLM
Administrator
Defense Technical Information Center

My name is Kurt Molholm. I work for Paul Robey, Chuck Gould and the rest of DTIC, and I also work for all of you. Welcome to our conference.

Let me tell you just a little bit about myself. This is my eighth month at DTIC. Previously, I was at Headquarters, Defense Logistics Agency (DLA)--our parent agency--and worked in the office of the Assistant Director for Telecommunications and Information Systems. I've been involved with DTIC for a long time, basically in buying its computers over the years, and also in various federal standards groups that have affected information standards concerning such things as transfer of information, telecommunications and computers. I was involved in the formulation, both from the DoD perspective and DLA, of the information resource management policies that would affect all of DTIC. I've also been a program manager.

My philosophy is simple--first we must always remember our only reason for being is our customers. We must be responsive to your needs by providing you with a timely product of very high quality. Second, we must be innovative and want to challenge the status quo. The status quo may be correct, but we can always assume it needs to be changed and improved.

We must also remember--as I try to remember--that DTIC is not just computers, databases, etc. It's people. And it's people who are dedicated, innovative, creative, and customer oriented.

I see the DTIC organization as a circle of circles which includes both formal organizations like executive steering groups and informal ones. It includes quality circles and other participative efforts for our employees to come up with innovative ideas. It also includes what I call our circle of users represented by such groups as the Defense RDT&E Online System (DROLS) User Council, the Resource Sharing Advisory Group (RSAG), the Manpower and Training Research Information System (MATRIS) Executive Council, and the Information Analysis Center (IAC) business meeting. I've met with each of these groups and find their input very useful. You're all a very important part of the whole area of the DTIC mission and the DoD Scientific and Technical Information (STI) program.

You're going to be hearing many things during this meeting, and I'll just highlight a few of them. The program summaries are now online replacing the old 1634s, and we have some more changes in the mill. The DROLS response times have improved, both in terms of time to connect to DROLS and internal response time after the connection. Both of these items were mentioned as problems, particularly in the Regional Users Conference in Seattle earlier this year. We've also reorganized our Directorate of Database Services to stress management of databases, rather than just stressing input and output, so we're looking at such things as database growth and enhancement rather than just the passive receipt of data and perhaps a passive output of it.

We're proposing changes to the Work Unit Information System (WUIS) file to make it more useful and easier for the Services and the agencies to input. We're also improving our management statistics gathering and reporting in this area so we can help the OSD enforce the DoD requirements regarding WUIS.

The two-sided printer procurement is under way. This will result in the replacement of our aging fiche-to-hard-copy process and provide better, more timely, and physically smaller reports.

I've had the pleasure of receiving over the past few months several excellent intern papers by our Information Science Interns. Some of these are included in the agenda over the next couple of days. I recommend them to you.

We've been studying replacement of our Technical Abstract Bulletin (TAB) by various alternatives. This will be discussed in the session "How to Promote DTIC's Products and Services to Your User Community." We are also strengthening our planning and management functions by formalizing the planning actions and increasing our analytical ability. For example, we are establishing an economic analysis and operations research function.

I'm continually excited over several of our development projects and their progress. Things like Gateway, Local Automation Model (LAM), and use of microcomputers for decision support are only three of over 20 different development projects we have.

One of the topical areas of the day is the value of information. A study by Mr. Fred Lewis of Hughes Aircraft to determine the economic value of productivity improvement through the use of DROLS and a recent economic analysis done by our MATRIS office are helping to bring us some rationale for the potential value of the return on investment for information resources. Last week at the IAC business meeting, a different approach was proposed by Dr. Tom Walsh of the University of Florida. The approach is to determine how much firms currently invest in user service, in information databases, and in libraries-- how much they actually invest. Now this is not trying to find the value, but this says there is an obvious value to companies and they've made an investment. What is that cost? The primary objective is to compare the level of investment deemed prudent by private industry to remain competitive to that currently made by the DoD to remain technologically competitive for national security. The results will help us guide our own budget strategy. I hope that some of you will volunteer to provide input to this study. Information being sought includes points of contact, estimated expenditures in terms of annual dollars, or percent of R&D for technical information services and trends. The questionnaire is only two pages long, and if you're willing to participate, please contact Mr. James Pendergast, Mr. Brian McCabe, or myself.

Finally, DTIC is expanding its horizons. For example, the Air Force, Navy, and Army, in separate tests, placed DROLS terminals at maintenance activities to determine if DTIC files could provide useful information to the maintenance scientists and engineers. The tests appear to have been very successful. Therefore, DROLS terminals will be springing up in more and more maintenance activities, which are nontraditional R&D areas. Another example is MATRIS which is now available on a limited basis through the Gateway system.

I now have the pleasure of introducing to you Brigadier General Charles Adsit. General Adsit, like DTIC, is unique. He is DLA's first Chief of Staff--a position he has held since March of this year--and he's also DLA's Competition Advocate General. His career in the Army has included a wide range of tough assignments ranging from Infantry Officer to ADP Systems Officer (which are very similar oftentimes); from Guided Missile Advisor to Weapons System Project Manager. He has served in the Far East, in Europe, and in the Pentagon--another hot spot--as well as many other CONUS sites. He received his Bachelor's Degree from Gannon College in Erie, PA, and an MBA from George Washington University. He attended the Army War College in Carlisle, PA, at the same time that I was attending the Industrial College of the Armed Forces (ICAF) here in Washington. While I didn't know General Adsit then, I do know that I was most impressed with the Army's selection of its people and the caliber of the people selected for the Senior Service Schools, and General Adsit has done nothing to change my impression.

The extensive databases and the sophisticated information systems which DTIC maintains for DoD and the entire defense community are potent tools in the hands of weapons system managers, R&D managers, and logisticians. General Adsit's experience gives him an excellent vantage point for viewing DTIC's mission, and the value of that mission to the defense program. As we push to explore new user populations for services, and to fine tune our existing services, General Adsit's observations are particularly meaningful to us.

**BG C. C. ADSIT, USA,
Chief of Staff
Defense Logistics Agency**

On behalf of General Babers, the Director of the Defense Logistics Agency, I would most heartily welcome you to this conference. We in DLA support these conferences 100 percent. I think they are a necessary component of the communication and feedback system that we need in all of our organizations. Communication and feedback are essential lifelines to having a viable program, especially to organizations like DTIC with so many users.

The feedback system of trying to understand what applications are currently ongoing, so that we can share them to look for new and innovative applications, is an absolute necessity. We have to look to what our future requirements are and try to anticipate what new products and services DLA and DTIC can provide to you. In order to do this, we have to concentrate on the management problem and the people aspect of doing our job.

It's essential to have a technology baseline in this type of business. We cannot exist without that baseline of technology in computers, and the only thing that makes all of that work is people. We have to assure ourselves that we are properly utilizing that most valuable asset--our people. I was very pleased to see at recent management and indepth reviews of DTIC that it's people programs, those oriented towards the user and internally to DTIC employees, are Kurt Molholm's highest priorities. I think he's to be commended for that.

Especially noteworthy is the use of the model installations program and quality circles. Often these programs merely become buzz words; they merely become another thing to put on a vugraph. I do not believe that is so in DLA,

and I especially do not believe that is so in DTIC. We look for the involvement of our people to solve our problems. Those of us who are in leadership positions do not have all of the answers. The only things that leadership can provide are the resources and the direction. The knowledge of how to get the job done has to come from the people, and that's all of the people--the users and the operators of this system.

Only through having a broad and knowledgeable user base does DTIC have a reason to exist. And it's through conferences like this that we share ideas, share knowledge, and have a common sense of purpose and direction as to where we're going. I'd like to again express the hope, and the conviction, that this will be an outstanding conference. I look forward to hearing the results of your next 2 days. I know that it will be well worth your effort, and I know it has been well worth our effort to put this conference on. Thank you very much.

MOLHOLM: Thank you, General Adsit. Before we move to the next agenda item, I'd like to leave all of you with a caution. "Don't starve the eagle." Recent posters are directed toward raising U.S. security consciousness, and warn us "Don't feed the bear." That is, don't let classified information find its way into unfriendly hands, the bear representing the Soviets of course. I certainly agree with this. DTIC has found many individuals who should submit information to DTIC who don't. They have doubts about the soundness of our security system--or at least that's a reason they use.

To counteract that attitude, DTIC is developing a security briefing module aimed at providing facts about our multifaceted and multilevel system. Facts which we believe will inspire confidence among those who have misconceptions about our security system, and which should lift the embargo, if there is one, which some document producers have imposed upon us. The module talks about the differences between DTIC and the National Technical Information Service (NTIS). It discusses our extensive physical security setup, the regulations which guide us, our procedures for user registration, and the more recent requirement for users who want more than unclassified unlimited documents--the export control documents--to certify with the Defense Logistics Services Center (DLSC). You'll be hearing more about this later on in the conference. The security module also explores where security-related responsibilities reside. It covers in detail DTIC's procedures involving receiving and releasing documents. It also discusses security-connected aspects of our ADP and our telecommunication online system.

You'll be getting the module as an addition to the user's handbook, and you're getting advance copies of the user's handbook here. You'll be hearing about security in our briefings, and it will become part of many of our exhibits.

The bottom line is please don't starve the eagle. Sharing of information is one important reason why America has always been first. Its strength must persevere. Please take steps to ensure that your R&D efforts are documented and submitted to DTIC so that they may be available to qualified users.

STATUS REPORTS FROM DTIC DIRECTORS - Paul Robey, DTIC-DD/William Thompson, DTIC-H/Charles Gould, DTIC-F/Sterling Atchison, DTIC-Z/Richard Douglas, DTIC-E/James Pendergast, DTIC-DF/Ellen McCauley, DTIC-DR

PAUL ROBEY
Deputy Administrator
Defense Technical Information Center

Good morning. I want to take this opportunity to welcome all of you to DTIC's Annual Users Conference. I'd like to encourage each and every one of you to try to attend as many of the sessions over the next 2-1/2 days as you can. I see a tremendous number of new people out there today, and I'd like to welcome you to the DTIC family of users. Our user community is somewhat of a closed community made up of DoD organizations and DoD contractors, and other government agencies and their contractors. I'd like to also encourage each of the new users to try their best to attend one of the new user orientations.

Before I introduce this illustrious dais of directors who are responsible for the DTIC mission, products and services, I'd like to go along with what Mr. Molholm and the General said and introduce some of the staff members and support people of DTIC. Without these people none of us up here could get our jobs done. Down front I have Ms. Patricia Gaynor, who is an assistant to Mr. Molholm for special projects; Ms. Carol Finney, who runs our Los Angeles field office--our little DTIC on the West Coast; Mr. Rene' Lehman, who is our Deputy Director of Document Services--he's Chuck's boss; Mr. Randall Bergmann, who runs our Boston field office--taking care of the customers up in the New England area; Mr. John Glynn--way in the back--Director, Office of Policy, Plans and Resource Management; Mr. Jerry Milstead--sitting in the back--is the Deputy Director for Telecommunications and ADP Systems; and last but not least, I'd like to introduce Ms. Kay Grigsby. As many of you know, over the last year I've been the Acting Director of the Office of Installation Services, but Kay, as the Senior Management Analyst on the Director's staff, has been the one who has really run that office and made sure that all the daily work has got done.

On the dais we have Mr. William Thompson, the Director of the newly reorganized Directorate of Database Services--the only thing that stayed the same was the title; Ms. Sterling Atchison, the Director of Telecommunications and ADP Systems; Mr. James Pendergast, the Program Manager for the Information Analysis Centers; Mr. Paul Klinefelter, who is the Director, Office of User Services; Mr. Charles Gould, Director, Directorate of Document Services; Mr. Richard Douglas, Director of the Office of Information Systems and Technology; and Ms. Ellen McCauley, who has recently returned from the Industrial College of the Armed Forces (ICAF) and is now the Program Manager for the Manpower and Training Research Information System (MATRIS).

So with that, I'm going to go back and reintroduce Mr. Thompson.

WILLIAM THOMPSON
Director
Directorate of Database Services

The Directorate of Database Services is responsible for managing the processes involved in creating and maintaining STI databases and the services and products that derive from them. The principle STI databases are the Technical Report (TR) bibliographic database, the Work Unit Information System (WUIS) database (that now includes program summary data), and the Independent Research and Development (IR&D) program database.

The directorate has recently undergone an internal realignment aimed at focusing attention on the need to manage the improvement and growth of the databases (as opposed to passive receipt of input), to actively pursue or propose changes in policy and direction related to STI databases, to improve the internal workflow, and to better group like or complementary processes. There are two divisions--a Database Management Division and an Analysis Division.

The Database Management Division (Victor Furtado, 274-7044) performs and maintains database input operations and initiates, maintains, and coordinates the operations, procedures, standards, and policies that influence the care and feeding of databases. It is composed of three branches:

- The Bibliographic Database Branch (Gretchen Schlag, 274-6804), in addition to descriptive cataloging and data entry of citation data, provides a focus for maintaining cataloging rules and several authorities related to cataloging; is instrumental in the Resource Sharing Advisory Group (RSAG) and Commerce, Energy, NASA and Defense Information (CENDI) cataloging rules committees; is program manager for the Shared Bibliographic Input Network (SBIN); and will, when vacancies are filled, assume an active role in proposing DoD policy and guidelines for technical reporting.
- The R&E Programs Database Branch (Carlynn Thompson, 274-4408), in addition to both monitoring and performing data entry to the R&E program-related databases (primarily the WUIS and the IR&D databases) and review and release of data to the master files, will also exercise a more active role in documenting input problems and nonreporting to the databases and proposing remedial efforts.
- The Database Support Branch (Winifred Bell, 274-6814) reviews and controls release of bibliographic citation data to the master AD file, to NTIS (for announcement of unclassified unlimited data in Government Reports Announcements & Index (GRA&I)), to the Government Printing Office (GPO) for publishing the Technical Abstract Bulletin (TAB), and to microfiche header creation for the document microphotography process.

The other division is the Analysis Division (Charles Jacobs, 274-6821). It is composed of two branches:

- The Subject Analysis Branch (John Baldwin, 274-6876) is responsible for text review and input of abstracts for bibliographic citations, the analysis and assignment of index terms based largely on the review of index terms generated by the machine-aided indexing (MAI) process, maintenance of the lexical dictionary, and monitoring the MAI process and other aspects of vocabulary control.

- The Retrieval Analysis Branch (Fuller Murfree, 274-6867) includes both demand and subscription output products and services. It receives and responds to specific, ad hoc requests for searches of one or more databases and also maintains the profiles for and operates the various profile-based subscription products, such as Current Awareness Bibliography (CAB), Automatic Document Distribution (ADD), and Recurring Reports.

Now, a word about some of the database-related efforts we've been involved in:

Committee on Scientific and Technical Information (COSATI) Subject Category Revision - our work continues on the second, or implementation, phase of the project to replace the old COSATI fields/groups with the "Subject Categorization Guide for Defense Science and Technology." Phase II involves preparing new registration forms containing the new fields/groups, reregistration based on the new field/group codes, conversion of the old fields/groups, and changes to all computer programs that validate output or display the fields/groups. Completion is not forecast until next year this time.

DTIC Retrieval and Indexing Terminology (DRIT) - after a slow learning process for applying the UNIDAS software, we're finally on the way to preparing a revised DRIT. A draft is now being edited, and we expect to send it to the printer around the beginning of the year.

Revision of DTIC Announcement Services (otherwise known as the "TAB Alternatives" project) - since TAB became classified, there has been some concern about its utility and effectiveness as a current awareness vehicle. Several surveys have verified this. A project team looked at the various uses or applications of TAB, as well as announcement and reference tools such as CAB and the Defense RDT&E Online System (DROLS), to identify a package of products and services that will be more useful than TAB.

The team's recommendations, that were approved by the DTIC Steering Committee, were that DTIC should:

a. Discontinue the publication of TAB.

b. Substitute publication of an unclassified, but limited, monthly comprehensive acquisitions list with five indexes. The citations in the list would not contain abstracts or subject terms. A subject index would not be offered. The purpose of the list would be to give the intermediary a reference and ordering tool. The monthly list and indexes will be published in hard copy. The acquisition list will cite all unclassified/unlimited documents and, therefore, will be more comprehensive than TAB.

c. Publish semiannual and annual cumulative indexes to the list on microfiche.

d. Encourage those users who need subject access to DTIC's new acquisitions to enroll in the CAB program where they can develop a profile specifically tailored to their needs.

e. Publish the Notices of Changes in Classification, Distribution and Availability as a separate document on a quarterly basis with the fourth quarter being an annual cumulation. Publication will be in microfiche form. It will be available to all users and not just TAB subscribers as is currently the case.

f. Encourage and support increased capabilities and "user friendliness" of the online system as a vehicle for document announcement and awareness.

The transition from the biweekly TAB to the twice-monthly acquisitions list will take place at the end of 1986, for Cycle 87-1.

WUIS - there recently has been a lot of high-level attention drawn to this file, unfortunately it's mostly critical (i.e., the file is not current, it's incomplete, and even the records that are in it are incomplete--according to a recent IG audit report). Constructively, this, plus an OSD mailing pointing out a gross disparity between numbers of R&D contracts cited in the DD 350 data (available from the DMS database) and the contracts recorded in the WUIS, is causing some positive actions within the Services to improve WUIS input. For its part, DTIC is initiating a project to upgrade the data content and reporting guidelines for the WUIS, as well as working on better analyses of the completeness and currency of the database for feedback to the Services and laboratories.

As I mentioned earlier, the WUIS database now includes RD-5 program summary records. As of 1 Oct 85, about 1,141 RD-5 records were loaded to the WUIS for online access. These included 511 FY 85 Army RD-5s, 301 FY 84 Navy records, and 329 FY 84 Air Force records. Instructions for searching the RD-5 data were mailed out to online users, but I'm sure questions about it can be answered at the DROLS workshop or demonstration sessions over the next 2 days. Also, Mr. Ernest Deadwyler, who along with Mr. Fred Lewis has been instrumental in setting up a new R&D Planning Information Management Section in the Technical Documentation Division of ADPA, will discuss some of the future plans, or at least hopes, for further online access to R&D planning data later this morning.

New Database Request Form - a new Request for DTIC Database Products form, DTIC Form 64, is in printing and should be ready for distribution shortly. This consolidates previous forms and all requests for all databases into one form.

Bibliographic Database - in the bibliographic database area, SBIN is now officially operational, as management of the program has transitioned from the Office of Information Systems and Technology to the Bibliographic Database Branch.

In response to numerous requests, DTIC has agreed to revert back to its earlier cataloging format for author names. So, beginning with TAB 86-1, the author name format will be--full first name, middle initial, and last name.

DTIC is starting to solicit user input for a revision to the DD Form 1473. If you have any suggestions, send them to the Bibliographic Database Branch, DTIC-HDB (274-6804).

One final note, as a result of the realignment, we're shifting some people around. Consequently, the subscription product people (ADD, CAB, Recurring Reports) must temporarily be reached on the same number as Demand Products (274-6867).

CHARLES GOULD
Director
Directorate of Document Services

I'm responsible for providing technical reports to our users in the best possible quality and the most timely manner. In preparing for this morning, I had written an elaborate speech, laced it with some nice statistics and that type of thing, but I decided to allow the Administrator and some of my colleagues to take a peek at it. Here's what came back--"Good morning, ladies and gentlemen. And in conclusion . . ."

I knew someone was trying to tell me something when they commented that my speech was like the horns on a steer--a point here, a point there, and a lot of bull in between. I have concluded that I learn more from listening than talking. I have come to realize that an ounce of "don't-say-it" is worth a pound of "I-didn't-mean-it-that-way."

On a serious note, I would like to mention a couple of things. I hope that each of you has noticed since the last conference that our turnaround time has improved. Not great, not overnight, but I think that you will notice that there has been a vast improvement. We hope to increase that even more. We recently had a realignment in one of our divisions, the one that reproduces the technical reports, and hopefully this is what's going to turn us around. As a matter of fact, we are so optimistic that maybe by this time next year we will have your technical reports in the mail before we even get the order. This will not be the case, though, with those technical reports that you order that are still on microfilm. Needless to say, that is still a time-consuming and labor-intensive effort, but we're working on it. A good point about that is that I now have some people working on the next publication of those items that have been converted from film to fiche. You should be getting your copy around the first of the year.

Another item of interest concerns the upcoming reregistration. Mr. Thompson touched on it when he was talking about the revised COSATI, and on Friday, Ms. Patricia Gaynor and Mr. Frank Sobieszczyk will be talking about export control. I mention those two things because my people in the Registration Services Section are going to be dealing directly with you in order to get this registration taken care of.

Another major concern--this seems to be universal in our user community--is the procedure, or lack of procedure, for processing limited document requests. Now, I won't stand here and try to tell you what to do, how to do it, why to do it, etc. Instead, I will direct you to Ms. Elaine Burress, Chief of the Document Processing Division, who is sitting in the back. She has gathered a panel of experts that will be having two sessions at 9:00 and 10:30 tomorrow morning. They will answer any questions that you may have dealing with the limited document procedure.

One other point that I wish to make concerns the covers on unclassified documents. In the last 2 or 3 weeks, maybe a month, we have been getting quite a few calls from some of our irate users who have said, "What have you done to us? Usually a document will come to us and we look at it; if it's color coded, we know right away that it's unclassified unlimited, unclassified limited, declassified, what have you." We found that space was at a premium to stock umpteen different types of covers. We also found that when one type of cover would run out, requests were sitting and waiting for the order to be filled for the proper covers. We made some checks with our security office and it came out that it didn't really make a difference on an unclassified report. The way that we were doing it was very convenient and easy to recognize. However, after all of the comments, questions, and calls that we have received, I have decided to look at that situation again and see if, in fact, it is going to be necessary or prudent to go back to the old system. So you'll be hearing more on that.

Finally, it has been said that the longer one speaks, the greater likelihood he will say something that he will later regret. Therefore, outside of this room you will find a table. On that table you will find a box. That box is for suggestions, comments, questions, gripes, beefs--whatever else you want to call them. Each of you has a form in your folder that you can fill out. Take advantage of it. Make sure that it gets back to us by 10:30 tomorrow morning. At that time, we will go over them and try to come up with some answers. If we don't have the answers, we will find someone who does. If we can't find anybody who has an answer, we'll show you! Get your questions and comments in and when we come back on Friday morning, we will try to clear up anything that you are having problems with.

May I say again, welcome. I hope you have a very nice conference, and in the event that anyone wants to throw brickbats, I will be around.

**STERLING ATCHISON
Director
Directorate of Telecommunications and ADP Systems**

DTIC's customers are DTIC-Z's most important concern. Why? Because DTIC's business is to take technical information products produced by DoD and its contractors and provide services and products needed by DoD and its contractors for weapons systems acquisition. DTIC-Z, all 110 people, are directly responsible for one of DTIC's services--the Defense RDT&E Online System (DROLS). Mr. Jerry Milstead is the DROLS manager. Indirectly, DTIC-Z staff is also involved in every product and service you receive through the mail from DTIC. For example, DTIC-Z staff design and operate the systems that process your

orders for technical reports, bibliographies, and planning information, even the mailing labels on products you receive are produced by the computer and printed on the Xerox laser printers. Without DTIC customers, there would be no need for DTIC-Z. That is why DTIC's customers are our most important concern.

We cannot serve you or meet your needs unless we know what you need. We must have feedback from you to let us know: (1) what products and services meet your requirements; and (2) what improvements and new services you need. DTIC-Z staff will be here all week to listen and to provide information to you.

In return, I want to give you some feedback about what DTIC-Z has done about your prior requests. Additionally, I want to let you know what we expect to do to permit DTIC-Z to provide better service in the future.

DROLS improvements you asked for:

o Display Costs of Technical Report Orders. This feature, which allows you to show costs of documents you order online, was implemented in January 1985. This long overdue improvement should help you in ordering documents from DTIC in the businesslike manner you use with commercial suppliers.

o Explanation of the DROLS Response: Unavailable for Display. When you ask for display of a document that is not authorized for display on your terminal, DROLS will respond in one of the following eight ways:

- Field/Group Rejection (Your site is not registered for documents in that scientific and technical field/group category.)

- Classification Rejection (Your site is not registered for that classification level.)

- Distribution Limitation Rejection (The requested document has distribution limitations.)

- User Code Expiration (You need to register again.)

- Unannounced Category (You asked for a document that is not available from DTIC.)

- Intelligence Category (The requested document contains information in an intelligence category which your site is not authorized to receive.)

- Database Error (There is a user-originated error in the distribution field of a work unit that DTIC cannot correct. Consequently, DTIC cannot release the work unit.)

- Site Ineligible for Data (Contractor sites receive this message when they request data for which they are not authorized under any of their contracts/potential contracts.)

o Added Export Control Statement. "This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S.C., Sec. 275) or Executive Order 12470. Violations of these export control laws are subject to severe criminal penalties. Distribution of this document is subject to DoDD 5230.25 procedures."

o Changes to the Form 55 Legend. Procedures for keying-in multiple Form 55 requests have been modified to allow reuse of basic data from previous to current entry.

o Search Only Current TAB Range. You now have the capability to search records for the current TAB range.

o Message for Terminated DROLS Sites. If users fail to update their registration, they will now receive a message on their screen when they try to sign-on telling them their user registration has expired. Users can then take immediate steps to register again instead of seeking help in diagnosing nonexistent communications and equipment problems.

o Automatic Positioning of the Cursor on Technical Report Orders. On 21 October 1985 this feature was implemented for synchronous DROLS terminals.

To support the increasing number of remote DTIC users wanting to participate in the Shared Bibliographic Input Network (SBIN) program, we have made extensive programming changes to expand data elements needed for site identification. The changes also make it possible to permit data sharing with additional Information Analysis Centers (IACs). New SBIN and IAC sites are being added.

Our goal is "faster" service for our DROLS users. Faster service means reducing the total time between when you begin to sign-on DROLS and the time you receive all of your search results. There are three components to the total time a user experiences in obtaining information through DROLS. The first component is "access time," the time it takes you to sign on to DROLS initially. The second is "response time," which is the time it takes DROLS to respond to your terminal after you complete transmission of any inquiry to DROLS. The third component is the "processing time." "Processing time" is the time between receipt by DROLS of a complete, valid search strategy and the time that all results are formatted and ready for transmission back to your terminal. Processing time is directly proportional to the complexity and size of your search. We can define "minimum processing time" as the time required to process your search when every computer resource your search requires is always instantaneously available when needed. For a given computer system configuration, you determine the "minimum processing time" by your search strategy. What you generally experience as response time includes "minimum processing time" and the time spent waiting for unavailable computer resources to become available. We constantly seek to adjust the equipment configuration, system priorities, and DROLS program to minimize processing time for DROLS users. In a multi-processing environment, your search competes with other searches and batch processing for various computer resources. Mr. Jim DePersis can provide helpful hints on optimum search strategies, that is, "the search strategy" that results in "minimum processing time" in obtaining the data you require.

We seek to improve your response time within the framework of technological and economic reality. For example, 2 years ago we quit doing any substantive batch processing during peak DROLS processing periods. Most batch programs are never processed while DROLS is operating. To avoid slowing down DROLS response, DTIC-Z staff regularly works weekends to catch up batch processing needed to maintain the DROLS databases and provide other products and services you request from DTIC. Balancing technological possibilities with our budget, we have doubled the input/output processors to two and doubled the main memory to a total of 2 million words or about 9.4 million bytes. There has been some resultant improvement in DROLS response time. However, for perspective, the technical report file contains 1.5 million records averaging about 1,800 bytes per record. If your search is structured so that the computer must examine or manipulate a large portion of the technical report file, your "minimum response time" will be large.

Statistically, "response time" is improving. Our 1985 average is 8.5 seconds, compared to 8.9 seconds in 1984 and 10.1 seconds in 1983. In July 1985, average response time was 7.8 seconds--still longer than you like to wait, but an improvement.

"Access time" has also been improved. TYMNET users now have Autobaud. We are experimenting with Autobaud for other dial-up users. Autobaud automatically switches the baud rate on the port to match the rate for 300, 1200, and 2400 baud users. More ports have been provided for your use.

The difference in response time and your "minimum processing time" is the time your search and you wait because of a lack of technological resources in DTIC's computer center. The major DROLS processing resources are a Sperry DCP/40 Front-End Processor with 256 ports and a Sperry 1100/82 computer system which now has two processors, two input/output processors and 2 million words of 36-bit main memory, some 20-year old UNIVAC tape drives, and a variety of obsolete disks and drum units. In December 1985, we expect to replace all obsolete peripherals with state-of-the-art equipment from Amperif; we will obtain a minimum of 716 million words of fixed disk and 13.5 million words of solid state disk from Amperif, as well as state-of-the-art tape drives.

In the fourth quarter of FY 1986, we are scheduled to install state-of-the-art peripherals on DTIC's second computer system--a Sperry 1100/61. This is the computer we use for all program development and testing, including user-requested changes. We are seeking approval to upgrade the central processor and input/output processor capability with a target for installation in October/November 1986.

We are procuring a second DCP/40 Front-End Processor to provide for effective external communications to the Sperry 1100/61.

With these improvements we expect to have the flexibility and capability to enhance security and to provide the equivalent of high quality commercial service to DTIC's customers.

For customers needing improved communication service, we are continuing to modernize DTIC's technical control center using contractual support for systems design and installation. In September 1985 we procured two state-of-the-art microcomputer-based test sets to enable us to diagnose your problems.

For customers needing secure access to DROLS, we have KG-84s to replace our obsolete KG-13s in FY 86. If you want to switch to classified service, let us know. We expect to be able to accommodate you in 1986.

For customers needing a "small" change to DROLS or development of another planning database, our systems analysts are now proficient specification writers and contract managers. They are still the dedicated people who change the systems to meet your needs. Many of them will be here this week to listen to your ideas.

DROLS needs to be redesigned using trusted computer criteria and structured design/structured programing techniques. DTIC has too many application programs that affect DROLS service that are still written in obsolete computer languages; they are next to impossible to change.

In October 1985 our biggest problem in meeting your needs is lack of systems analysts/programers. Because of the grade structure and pay that is not competitive with the private sector or other government organizations in the Washington, DC, area, we are not able to obtain the necessary systems analysts and programers for DROLS redesign/reprogramming of obsolete applications programs. While contract assistance has some drawbacks, we are using as much contract analyst/programer support as our budget allows.

We are making progress getting obsolete programs into ANSI COBOL and replacing, where warranted, file structures with databases. We are doing this so that we can continue to operate and to make improvements you request, not because we would not like to be able to use ADA or other fourth generation software.

We are still aiming for a redesigned DROLS in the 1988-1990 timeframe, but that certainly depends on money for contractual support.

Our philosophy is that we will use international standards in acquiring ADP equipment, telecommunications equipment, and software. This will allow us the maximum flexibility in providing modern systems to you at the lowest overall costs.

Let me urge you to communicate your needs and ideas to the DTIC-Z staff during this conference. You will help yourselves and help us.

RICHARD DOUGLAS
Director
Office of Information Systems and Technology

I have the responsibility for the research and development functions within DTIC. The primary responsibility of the Office of Information Systems and Technology is to determine the needs of our customers and to apply emerging technologies to meet those needs.

At last year's conference, my office conducted a series of workshops that we feel were well received by the attendees. This year we have not scheduled any development project workshops because of schedule limitations. However, during the next 3 days you'll be hearing from others a great deal about the projects we manage. For example, later this morning Mr. Ernest Deadwyler from Texas Instruments will talk to you about the R&D planning information situation and system. He and others within the industry have been working with us at DTIC and OSD on our program summary database project. Some of you may recognize it by its nickname, the "RD-5 Project." An RD-5 is just a form from which this information is gathered. The purpose of the project is to establish a database of R&D planning information at DTIC to serve the needs of OSD and other user communities. As Mr. Thompson mentioned, on 1 Oct 85 part of the project became operational. DTIC now provides program summary information as a subset of the work unit system. An announcement of the service was distributed in late September.

The database is expected to be based on the RD-5 format for only 1 year. After that, Program Element Descriptive Summaries (PEDS) will be used as a database source of information. They are very similar, but they are different. We have received user input in regard to the structure of this database, much of it via Mr. Fred Lewis from Hughes Aircraft. We would welcome additional input from all of you as to the kinds of data elements you require and how you would like to retrieve the data.

I know that many of you have waited several years for this information service, and we have not yet provided an ideal information planning product. The reason for the delay is political rather than technical. Technically, we've solved--or can solve without much difficulty--the problems of gathering, processing, storing, and redistributing R&D planning information to our registered users. Politically, however, significant fundamental problems do remain. Mr. Deadwyler and I are among those who believe DoD and its contractors are partners in achieving the common goal of a strong, efficient national defense, and that the achievement of this common goal is enhanced when contractors know where "DoD Planning" is planning to spend its R&D money.

There is, however, another point of view within DoD that sees the need to maintain an arm's-length relationship with contractors, and, therefore, does not want to share planning data with them. This group is particularly sensitive about the release of financial planning data, lest it be misunderstood by contractors or that such data might give certain contractors an unfair competitive advantage.

The Army has been very cooperative and open with its planning information. They have supplied it to us fully and in convenient form. The Navy, on the other hand, has taken a more conservative posture. The Air Force is somewhere in between. We have received no planning data from OSD, and they're the people who told us to do this. We are continuing both our technical and political efforts to make this information available, and I think we will ultimately be more successful. But I think it's important for you to understand that the release of financial program summary data remains highly controversial.

Gateway has grown into the largest ongoing project in my office, and continues to grow in interest, scope, and priority, both within DoD and at DTIC. The Defense Gateway Information System will provide DTIC users the ability to access a variety of databases, including those at DTIC, the National Aeronautics and Space Administration (NASA), Department of Energy, and elsewhere, from a single dial-up terminal using a single search language. Lawrence Livermore National Laboratory is our design contractor. The Logistics Management Institute also plays an important support role. The system is running on a prototype mode for test purposes right now, and is accessible through the Livermore computer. DTIC's prototype Gateway computer is on order, and should be installed in early 1986.

While the system was originally designed for the R&D community, we are getting a lot of interest and some money from the logistics community in support of our effort. The Manpower and Training Research Information System (MATRIS) that was formerly a standalone system has now been tied into Gateway and can be searched at remote dial-up terminals.

We have received funding from all the Services and DoD amounting to over \$1 million in fiscal year 1985 in support of the project. Gateway has been receiving universal acceptance and support throughout DoD.

There will be sessions Thursday in which DTIC interns will present a series of papers on issues of special interest. Their presentations will cover various aspects of our Gateway program, as well as our computer-aided instruction project and efforts to better identify how scientific and technical information actually flows in a military research environment.

Finally, I'll say a few words about long-range planning efforts that are ongoing. Thursday afternoon Mr. John Glynn and Mr. Russell Parris from our Office of Policy, Plans and Resource Management will be giving you an update on planning at DTIC. The presentation signifies the growth of DTIC's ad hoc planning effort that I chaired for the past 2 years into a mature planning effort that will be continued by the Office of Policy, Plans and Resource Management. I'm proud of the work that our ad hoc planning team produced in the past, and I think you'll be favorably impressed with Mr. Glynn's plans to institutionalize comprehensive planning at DTIC within his office. As you will hear at this presentation, there's a tremendous amount of work still needed to translate our goals into reality. In the words of Peter Drucker, a plan is just a plan until it degenerates into work. And that's what's happening now. Believe me, it's degenerated into work.

There are a lot of other activities that are going on within my office that I don't intend to cover here. However, if you are interested, there's a handout in your packet containing a complete listing of our active development projects and the current status of each. The project officers and their telephone numbers are included in the handout, should you wish to learn more.

JAMES PENDERGAST
Program Manager
Information Analysis Centers

DoD 3200.12-R-2, Centers for Analysis of Scientific and Technical Information Regulation, was issued on 17 Jan 85. It replaces and cancels DoD Instruction 5100.45, Centers for Analysis of Scientific and Technical Information, July 28, 1964. This regulation prescribes procedures to be followed by all DoD components in establishing, operating, and administering Information Analysis Centers (IACs). Of importance to you is that DTIC will provide microfiche copies of technical reports originated by IACs after 17 Jan 85 to DoD and its contractors registered for services with DTIC at the standard microfiche price.

The Manufacturing Technology Information Analysis Center (MTIAC) was established on 4 Jun 84. The contractor is Cresap, McCormick and Paget, Inc. The ITT Research Institute is a major subcontractor. The center is located with GACIAC at the IITRI headquarters in Chicago. MTIAC was established to support DoD in achieving its goal of improving the productivity and responsiveness of the DoD industrial base.

The Survivability/Vulnerability Information Analysis Center (SURVIAC) was established on 21 Dec 84 at Wright-Patterson Air Force Base. The contractor is Booz-Allen and Hamilton, Inc. SURVIAC is the focal point for non-nuclear survivability/vulnerability data, information, methodologies, models, and analyses to U.S. and foreign aeronautical and surface (excluding ships) targets.

We are in the process of establishing a Chemical Warfare/Chemical Biological Defense IAC (CW/CBDIAC). The RFP has been issued; proposals have been received and initially evaluated. Plans call for the center to be established at the Chemical Research and Development Center at Aberdeen Proving Ground, MD, with a contract award date of 1 Jan 86.

We are in the process of establishing a High Temperature Materials-Mechanical Thermophysical and Electronic Properties Information Analysis Center (HTMIAC). Proposals have been evaluated and the contract will be awarded effective 1 Jan 86. TEPIAC will be phased out on 31 Dec 85. The principal technical product of the HTMIAC will be a high energy laser hardened materials properties database.

We are in the process of establishing a Corrosion Information Analysis Center (CIAC). The IAC procurement process takes approximately 9 months so it will probably be June before this contract is awarded.

We have recently recompeted contracts for the Metal Matrix Composites Information Analysis Center (MMCIAC) and GACIAC. Contracts run for 3 years with a 2-year option.

The records of the Chemical Propulsion Information Agency (CPIA) and MTIAC are now being added to the DTIC technical report file. SURVIAC records should soon follow.

In April 1985 we published an Information Analysis Center Directory. Copies were included in your registration package.

A proposal justifying the establishment of a Crew Systems Ergonomics Information Analysis Center (CSERIAC) has been forwarded to Colonel Carter, the Acting Deputy Under Secretary for Defense, Research and Advanced Technology. Ergonomics and human factors engineering are about the same. In general, crew systems ergonomics information is scientific and technical knowledge and data about human characteristics, abilities, limitations, physiological needs, performance, body dimensions, biomechanical dynamics, strengths and tolerances. It is also engineering and design data about equipment intended to be used, operated, or controlled by members of military crews. The objective of CSERIAC is to enhance the effectiveness of manned systems.

ELLEN MCCUALEY
Program Manager
Manpower and Training Research Information System

I'm the new Manpower and Training Research Information System (MATRIS) Program Manager--I've had the job since I returned to DTIC from my year at the Industrial College of the Armed Forces (ICAF) in August. As you may know, the MATRIS staff is located in San Diego. We have two representatives of that staff here and I'd like to introduce them. They are Ms. Linda Loughnane, Operations Manager, and Ms. Lisa Benton, Custom Database Coordinator.

I'd like to start this morning with a quick review of what MATRIS is; what products and services it provides; tell you of some of the accomplishments of the program this past year; and, finally, talk about some of the things we're working on and planning for.

MATRIS is an automated information system developed to support the technical information needs of the Manpower, Personnel and Training (MPT) R&D community. It's jointly-sponsored by the Office of the Under Secretary of Defense for Research and Engineering and the Office of the Assistant Secretary of Defense for Force Management and Personnel.

MATRIS provides program managers, laboratory managers and researchers within the MPT community with information about planned, ongoing and recently-completed research within four subject areas: human factors, manpower and personnel, education and training, and simulation and training devices. Within these areas, MATRIS provides program element, project and work unit level data. Only DTIC's registered users may receive MATRIS services.

What can MATRIS do for the MPT community? Custom-tailored searching capabilities provide the ability to track and manage research and funding allocations according to various classifications, including Congressional categories, DoD goals and objectives, DoD budget categories, and technical descriptive terms. A specially-constructed indexing vocabulary allows for highly specialized searching within the system's subject areas. MATRIS can also generate sets of preformatted management reports or respond to ad hoc management queries requiring custom output products. If you have a requirement for data in the MPT area, a call to MATRIS San Diego can initiate the search process.

Two of MATRIS's better known standard products are the R&D Program Description and the Directory of Researchers.

The R&D Program Description provides program element and project level data compiled from the Congressional Data Summaries and the Program Review Documents. It contains narrative summaries and fiscal data and is used at OSD for overall MPT program coordination and budget defense.

The Directory of Researchers provides information at the work unit level on who's doing what in the MPT field.

The types of information in the system and much more detail on the outputs available are outlined in the MATRIS User's Handbook now in the final stages of preparation. We hope to have the handbook ready by the first part of next year. Like our other standard products, it will receive an AD number and be available through DTIC's regular request processing system.

I might mention here that the first 200 lucky registrants today receive a copy of one of our publications illustrating sample MATRIS outputs. It's that blue-covered document AD-A152-600 in your registration packet. Those of you not among the lucky group who would like one can get it from the MATRIS office or, if you'll give me your address during the course of the conference, I'll see that you get one. We're sorry that there weren't enough to go around.

I'd like to highlight a few of MATRIS's accomplishments for the year. A study was conducted to provide MATRIS staff with: (1) a methodology for performing cost/benefit analyses, (2) an interpretation of the results of the first analysis, and (3) an approach to selecting and evaluating proposed projects.

The direct impact areas for MATRIS service to both researchers and managers were identified as productivity, decision making, information flow, and standardization. The indirect or eventual effect impacts are expected to be in system/mission performance, system life cycle costs, and operator/maintainer performance. Due to time and data constraints for this analysis, only the direct impacts of productivity and decision making were measured. For these measures a positive benefit-to-cost ratio of 3.7 to 1 was obtained. We were assured that this ratio is statistically sound and that the assessment is conservative. We expect the eventual analysis of the other impact areas will show an even larger ratio.

Completion of this analysis accomplished the third decision point established at the beginning of MATRIS development--"Is the cost of the products and services provided by the system of positive value?"

MATRIS provides "special" services to some of our major clients in the form of custom-designed databases containing unique data elements that are stored separately from the central MATRIS database. These custom databases are created to serve the internal information needs of the client as well as provide assistance in meeting their external reporting requirements. The staff established such a custom database for the Naval Personnel Research and

Development Center (NPRDC). That's the Navy's lead laboratory for MPT research and development. It consists of a subset of work unit and task level data from the central MATRIS database and a collection of new data elements unique to NPRDC. As a result of this effort, NPRDC now has the ability to rapidly and easily access information to support the planning and programing process and to respond to documentation requirements. During the last year, several tasks were accomplished in working with NPRDC on their database. A PC-based updating and viewing system was delivered to NPRDC which allows an R&D manager to page through extensive R&D summaries quickly to review current R&D efforts in process. The viewing capability is also complemented with an input and updating system that allows for updating the same R&D summaries. The PC-based system is user-friendly and requires a minimum of training. At the present, we are awaiting comments and feedback from the user. Future refinements are expected. In addition, this approach is seen as a useable system for other R&D laboratories. A similar system is now being installed at Army Research Institute (ARI).

For those of you who can't live without statistics, the MATRIS database has nearly 5,000 records. Two thousand of these represent Navy efforts, 1,200 each are from the Air Force and the Army, and the rest from OSD.

Now for the future. We have begun efforts to establish MATRIS as one of the prototype Gateway nodes. An equipment survey was completed and procurement of the necessary computer and communications equipment is under way. This will greatly expand the availability of the system to its user community and provide direct access to MATRIS data. We plan, in conjunction with the Gateway development efforts, to continue the development of prototype post-processing routines--in our case directed toward the needs of the MPT community--for inclusion in the Gateway package.

At the same time, we are expanding our in-house computer capabilities. We are evaluating contractor proposals at this time and are hoping to install the new equipment--a super mini--early in the new year.

Plans are being made to add MATRIS descriptors to independent R&D summaries reporting research in the MPT field. We expect to start this service in the new year.

Earlier this month, Ms. Lois Richards-Means, the MATRIS San Diego manager, briefed both NATO and United Kingdom representatives on the MATRIS program. As a result of these contacts, we hope to begin adding work-unit-like summaries of the MPT research being conducted in the NATO member countries shortly.

This has been a brief overview of MATRIS and, if any of you have questions or would like more information about any aspect of the program, please see Ms. Loughnane, Ms. Benton or me during the course of the conference.

R&D PLANNING INFORMATION MANAGEMENT. Earnest W. Deadwyler, Texas Instruments

In December 1982, a conference on DoD-Industry Technical Information Exchange was held at the Naval Research Laboratory in Washington. Among the topics discussed in conference workshops were the needs of industry in the technical information area and problems being encountered in obtaining information required for R&D planning. At that time industry was finding increasing difficulty in getting information that had been available freely, or relatively freely, before.

Based on recommendations made at the conference, Dr. Leo Young, Director of Research and Laboratory Management in OUSDRE and the conference sponsor, formed an "Information for Industry" committee made up of Army, Navy, and Air Force representatives, plus several people from OSD. Focus of this committee was on ways to improve the flow of technical information to industry. An advisory group consisting of six representatives from industry was also formed. Members were Fred Lewis of Hughes Aircraft, Margo Giardano of Honeywell in Washington, John Keehner of Goodyear Aerospace in Akron, Diane Lafferman of Rockwell International in Washington, Lucille McClure of Martin Marietta Aerospace in Orlando, Nate McGrew of General Dynamics in Fort Worth, and myself. Rebekah Liller of General Electric in Washington and Bob Peterson of Raytheon in Boston have replaced Diane Lafferman and Margo Giardano.

The Industry Advisory Group met with the Information for Industry Committee quarterly beginning in April 1983. It was very obvious in the early meetings that there were a number of problems to overcome to improve the flow of information and the overall R&D planning information process, and more help was needed. In June 1983, Fred Lewis and I went to the American Defense Preparedness Association (ADPA) and talked with Major General Frank Hinrichs, Director of the Technology Management Advisory Service, to ask if ADPA could help. General Hinrichs immediately recognized the importance of industry concerns and suggested that we discuss them with the Executive Board of the Technical Documentation Division. He felt we could get visibility through this division, even though it was not an exact match for the activity in which we were involved.

Over the next year or so, we continued to work with the Industry Advisory Group, the Information for Industry Committee and ADPA. In April of this year, the Information for Industry Committee and Industry Advisory Group decided to try moving their activity into another forum to get more visibility and action. It was recommended to ADPA that the Information for Industry Committee and Industry Advisory Group members become the executive board or steering committee for a new R&D Planning Information Management Section to be formed in the Technical Documentation Division. This was approved. Since then we have been working to get the section organized.

When formal go-ahead was received in April, Fred Lewis and I, under ADPA sponsorship, also began making presentations to get more visibility within the Services of this very important area of concern.

I might digress at this point to say that I have worked with Fred Lewis extensively during this time and for several prior years. I hope you all appreciate the work he has done to improve the availability and management of R&D planning information within both the government and contractor communities. He has done a tremendous job and deserves a great vote of thanks.

We first briefed General Babers, Director of the Defense Logistics Agency, who has responsibility for DTIC; then Dr. Colvard, who was then Deputy Chief of Naval Material. We also briefed General Thompson, Commander of the Army Materiel Command (AMC), and Major General Cercy, Commander of the new Laboratory Command in AMC. In the Air Force we went to the Systems Command (AFSC) and briefed two of General Skantz's staff directors, Brigadier General Nelson, Director of Plans and Programs, and Brigadier General Slinkard, Director of Contracts and Manufacturing.

The thrust of the briefings was as outlined here:

- o We are addressing a problem that is both DoD and industry wide--the need for better management of RDT&E planning information.
- o The means for solving much of this problem are available now--relatively quickly and inexpensively.
- o Solving the problem can yield huge productivity gains for the Army, Navy, Air Force and industry.

We emphasized that the problems we are concerned with are widespread in government and industry. Also that the means for solving many of them are available now and the productivity benefits are quite large.

The importance of R&D planning information is evident from the fact that it impacts all programs and is a real force multiplier. We believe that productivity penalties are being experienced as a result of some of the problems and the situation is not only not getting better, it is getting worse.

One of the concerns of industry is that we in the U.S. can never match the Soviet Union in numbers of engineers working on defense-related programs. We must therefore work more effectively and efficiently than they.

The problems presented to those we briefed exist in the input process--at DTIC and in the user community. On the input side, there are missing reports, incomplete reports, and out of date reports. When we presented this message last summer we were unaware that an OSD Inspector General (IG) team was also looking into the input of reports to the DTIC databases. When the IG report was published in September, it confirmed much of what we had been saying regarding input to databases and utilization of DTIC.

The DTIC problem is that, while the system itself is basically very good, the technology and equipment being used are old--the system is out of date and needs updating and upgrading. Also, there is much information not now available to industry which could be incorporated into DTIC files and made available through that channel.

The fact that the information is incomplete, late, at times inadequate, and also some of the difficulties in using it, tend to create a self-fulfilling prophecy in the user community in that users say, "Well, the information is no good, so we can't use it." This leads both government and industry users to ignore DTIC rather than trying to learn to use it effectively. Consequently, the Services, in undertaking their programs, frequently just "do their own thing." New projects are started without checking to see what has been done before to avoid duplication, waste and overlap. As a result, millions of dollars are being wasted. The solutions to the problems seem obvious: provide up-to-date and complete inputs to the databases and use them more effectively, including the IR&D database. While industry doesn't have access to the IR&D database, it does a lot of work to input information to it. Many companies generate lengthy IR&D reports which are included in the IR&D database and would like to see the government use it more effectively. Funds should also be provided to bring DTIC up-to-date. Some of the actions needed have been mentioned here today. If DTIC can be brought up-to-date and an education program conducted for both government and industry users, the system itself will be used more effectively and there will also be a better exchange of information to increase the overall benefits.

That is basically the information presented to the people mentioned earlier.

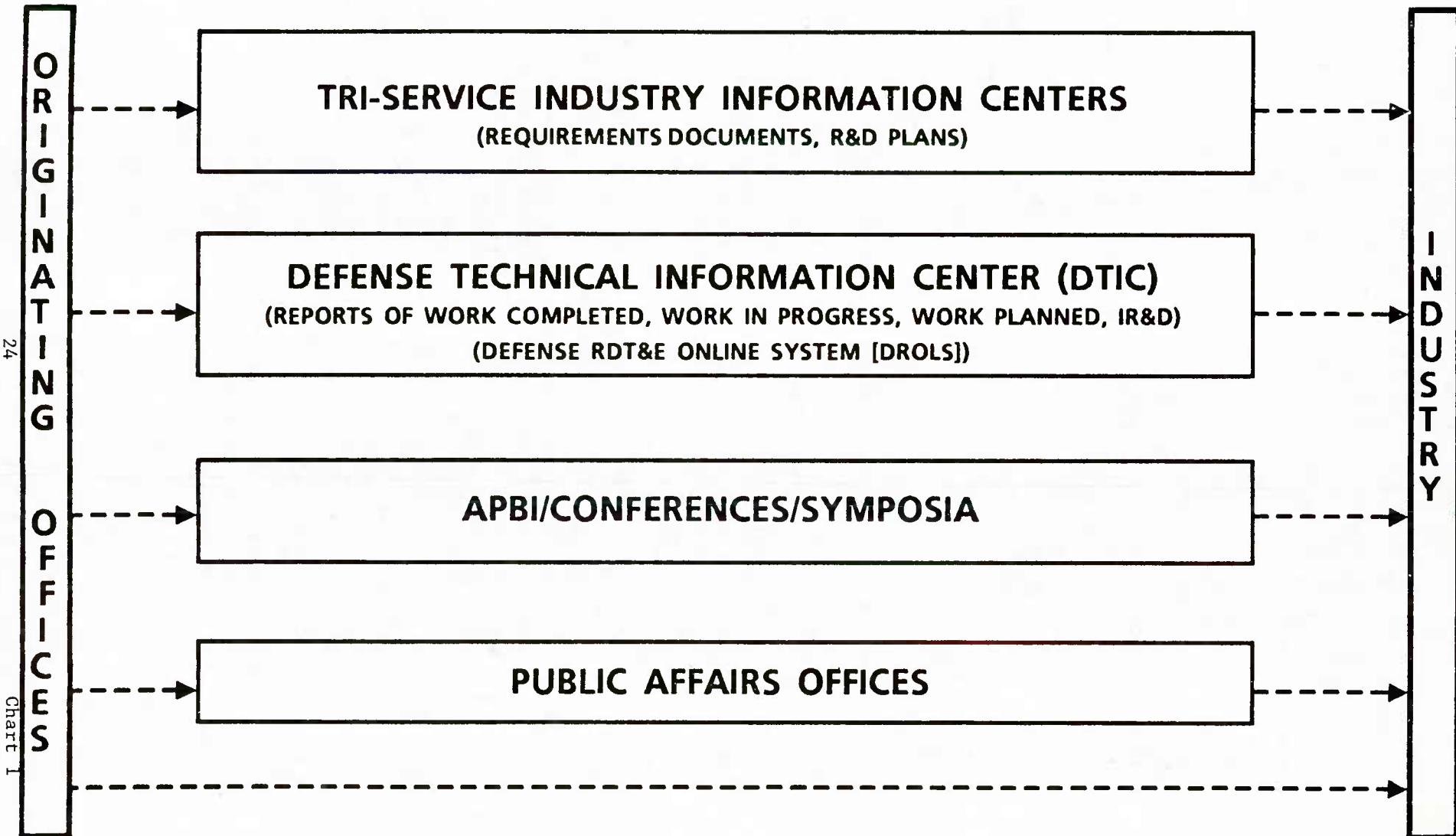
The type of information in which we are interested, however, goes beyond that available in DTIC. There are other items which should be in DTIC, many of which are available through other channels. Some of the documents which would be very helpful to industry include: Congressional Descriptive Summaries, Program Element Descriptive Summaries, Project Summaries, Five-Year Defense Plans, Technical Objectives Documents, Long-Range Plans, Requirements Documents, Laboratory Posture Reports/Program Summaries. In fact, they are vital to effective R&D planning for company-funded programs as companies attempt to position themselves to be competitive in the marketplace in future years.

The way these reports are obtained is depicted on Chart 1. It shows originating offices on the left, with arrows of various widths indicating relative usage going to industry on the right. We believe the primary channels for distribution of information should be DTIC and the tri-Service industry information centers or technical industrial liaison offices, with advance planning briefings for industry, conferences, symposia, workshops, etc., being other channels, and public affairs offices a limited channel.

At the bottom is a dotted line directly from the originating offices to industry. It is a thin dotted line which should probably be thicker. One of the points made in our briefings was that, if DTIC and the tri-Service centers can be made more effective as channels for flow of this information, the amount of information sought through direct contact can be reduced. This will result in fewer contractor people visiting developing agencies and laboratories seeking information.

REQUIREMENTS AND PLANNING INFORMATION
FOR INDUSTRY
TECHNICAL RETRIEVAL

INFORMATION DISSEMINATION CHANNELS



One result of not getting the right information is an increase in the length of the acquisition process. If the right information can be made available to the right people at the right time, the length of the acquisition process can be reduced. The key is for people to work smart, not hard--smart because they have the right information and know where they are going. This will also reduce duplication, wasted effort, and lost time.

Before the R&D process formally begins with a funded program and contracts, there is much activity in government laboratories and the independent research and development (IR&D) programs of the contractor community. This effort is focused on the technology that will be needed for programs when they are put in place with specific objectives. Visibility is needed in the operational community of technology being developed in government and industry laboratories which can be applied to meet future needs. Also, visibility of future operational needs is needed in the laboratories so the technology can be effectively focused.

The key point is that, during IR&D, technology needs are anticipated and programs focused on future operational needs. Companies do not always have contracts to provide a need-to-know during this time. Nevertheless, they do have a need-to-know in order to plan intelligently and focus company funds and technology emphasis on defense technology needs. We believe this kind of visibility can shorten the acquisition cycle significantly, probably by 2 years or more. Engineer productivity will also be improved because they will be working smarter, not harder. It will also provide a leveling process in the information made available to industry and thus increase competition. The bottom line is a reduction in wasted effort by eliminating duplication and false starts.

Recommendations made in the briefings we presented were very simple. They were kept simple so we could get started on tasks to provide a working relationship between government and industry to focus on problems in this area. We recommended forming small task forces in AMC and AFSC to look at the input problem, see what it really is, and see what can be done to resolve it. We also recommended looking at industry needs to see if the process of providing information can be improved. We mentioned the "Gateway" system DTIC will be implementing as part of its technology improvement and recommended that users get educated about it and develop plans for utilizing it effectively. We recommended a general upgrading in management of R&D planning information.

The briefings received good response. There was agreement that there is a need to improve reporting and input to the various databases and a need to educate people on the use of the system for R&D planning--in government and in industry. There was strong support for ADPA activity in increasing visibility of the problems. We received letters from General Thompson at AMC and General Skantz at AFSC agreeing generally with what was presented in the briefings. They agreed with the tasks proposed and designated individuals as points of contact to work with industry.

One point made by most people we talked with was that the whole process needs to be "top fed." The people at the working level who are blocks to disseminating information in many cases are overly cautious in interpreting and applying rules and regulations, and are making it more and more difficult for industry to obtain information. I am not sure we are making much progress there.

A suggestion made in several discussions was that we do additional homework and find a way to show the benefits of improving input. Those who are being asked to make the inputs are very busy, and we are recommending taking their time and effort to prepare reports to go into the databases without indicating immediate pay-off for them. Because the pay-off has no effect on their efficiency reports or performance appraisals, they are not motivated to make the input. An analysis is needed to make the benefits clearer.

To summarize what we are proposing to do or have under way--the R&D Planning Information Management Section was formally organized on 26 September. I was elected chairperson, while Fred Lewis and Dr. Leo Young were elected vice-chairpersons. Several committees are in place. One is a membership, or recruiting, committee with Lucille McClure of Martin Marietta Aerospace in Orlando as chairperson. We will be happy to receive applications for membership in ADPA, and in the R&D Planning Information Section specifically. We hope that many of you here will respond. We have already notified over 300 people about the formation of the new section and extended them invitations to join.

With regard to the tasks mentioned in our briefings and letters to the AMC and AFSC commanders, Fred Lewis has been doing a great deal of work to get started. We still need to get to the Navy. With the dissolution of NAVMAT it is not clear where to go for action, but we are working on that. We are also trying to go on up the chain in OSD to get more visibility there.

Planning has begun for a symposium to be held 30-31 January 1986 at the Hyatt-Regency in Crystal City in Virginia. The theme will be "R&D Planning Information--Key to Effective Defense Acquisition." We will look at what has happened since December 1982 in this area and also get an update from people in the R&D planning area in the Army, Navy, and Air Force. Kurt Molholm or one of his people will provide an update on some of the DTIC activities you heard about here today. Dr. Hicks, Under Secretary of Defense for Research and Engineering, has been invited to be the keynote speaker. Don Carter from OSD and Major General Cercy from the Army have also been invited. We are not sure who the general officer speaker from the Air Force or flag officer from the Navy will be. Frank Sobieszczyk and Diane Fountaine from OSD have been invited to discuss security considerations. Several other people from government--Colonel John Ramsden from the Army, Hugh Montgomery from the Navy and Mick E. Flynn from the Air Force--will participate in a panel discussion of problems with some senior representatives from industry.

We hope to generate recommendations and a plan of action for resolving problems to present to Dr. Hicks as a follow-up to the report he received from the DoD Inspector General in September regarding inputs to and utilization of the databases to help improve the overall effectiveness of the R&D process.

We are also initiating planning for the 1986 annual meeting of the Technical Documentation Division meeting in Orlando.

We invite those of you who are interested in joining the R&D Planning Information Management Section to give us your names and put 30-31 January on your calendar to attend the symposium.

Thanks very much for the opportunity to make this presentation.

DROLS USER COUNCIL REPORT. William Hansen, President

Good afternoon, everyone. My name is Bill Hansen. I'm from the Armor School at Fort Knox, KY, and I'm the President of the DROLS User Council for this year. I'd like to welcome you to our session. Let me say right off the bat, however, that any criticisms that are worded either by the members of the User Council or myself, or I'm sure anyone in our audience, are meant to be constructive and we're not trying to sharp-shoot DTIC in any fashion.

Let me begin by introducing the members of the User Council who have served you very well in the last year. I'll read their names and ask them to indicate their presence by standing: Marilynn Johnson from Tactical Air Forces Interoperability Group in Langley, VA; Blanche Shiflett, Defense Systems Management College, Fort Belvoir, VA; Rosalind Cheslock, Martin-Marietta Laboratories in Baltimore, MD; Fred Lewis, Hughes Aircraft, Radar Systems Group in Los Angeles, CA; Harold Smith, Grumman Aerospace Technical Information Center in Bethpage, NY; Sandra Young, Defense Nuclear Agency in Washington, DC; Patt Pulliam, Naval Surface Weapons Center in Dahlgren, VA; Alma Spring, Defense Advanced Research Projects Agency in Arlington, VA; Laura Thompson, Naval Coastal Systems Center in Panama City, FL; and Kathy Wright, Naval Ocean Systems Center in San Diego, CA. These people have all worked very hard in the last year for you and you will hear more from some of them a little later.

All of you have received in your packet a ballot for the User Council election. The User Council by-laws state that five members shall be elected to the User Council in odd-numbered years. This being one of those occasions, we have five to vote for. Let me just say two very short procedural things about this ballot. You'll notice in the upper right-hand corner there's a place for your site ID. Any ballots that are received without a site ID or with a site ID that cannot be read, or a site ID that is fictitious will be invalidated. In addition, in the upper left hand corner, you'll note that it says, "one vote per organization." All the votes will be validated and if we get more than one vote from a single organization, then all of the votes from that organization will be invalidated. So vote for five candidates on this list.

I'm going to ask Mr. Fred Lewis to make a statement, and then we're going to call for nominations from the floor. Then we will ask the candidates to come forward so that we can all see what they look like--so you can button-hole them between now and the election and find out what makes them tick.

FRED LEWIS, HUGHES AIRCRAFT, LOS ANGELES, CA: Some of you may have noticed that my name was on the ballot, but I will not be up for reelection this year. A group vice president has some other things for me to do that I just recently found out about. In my place I would like to nominate my terminal operator, Sherril Hisaw, who works very closely with me at Hughes Aircraft in the Radar Systems Group.

HANSEN: Thank you, Fred. We have a nomination from the floor for Sherril Hisaw. Do we have a second? Okay. We'll ask you to write in that candidate.

Before we proceed with any other nominations from the floor, I, as the User Council President, would like to personally thank Fred Lewis for the outstanding work that he has done on the Council. We're going to miss his sage advice and his eloquence on the User Council, but I'm sure that we are not finished with Fred. He'll be around, I'm sure, in one manifestation or another for a long time to come. So we thank him, and I think the users group owes him a debt of gratitude for his work. Fred, thanks a lot.

Are there any other nominations from the floor? I realize that this is somewhat abbreviated parliamentary procedure, but I'm not a parliamentarian so I ask you to forgive me.

When I call your name, please stand so that we can see who you are and people can approach you during the next day or so and see what you're up to. From the Army--Sybil Bullock, Army Aeromedical Research Laboratory; Martha Domonkos, Army Armament R&D Command; Anne Foreman, Army Aviation Center; Delfina Galloway, Army Air Defense Artillery School; Robert Seidel, Materials and Mechanics Research Center. From the Navy--Kenneth Thoenes, Naval Research Laboratory; Kay Keener, Naval Weapons Center; Patricia Prentice, Naval Air Systems Command; Kathy Wright, Naval Ocean Systems Center. From the Air Force--Ellen Dobi, Air Force Geophysics Laboratory; Van Gandy, Air Force Armaments Laboratory; C. Frank Westerman, Tactical Air Forces Interoperability Group; Bill Whalen, Wright Aeronautical Laboratory. Other DoD agencies--Margaret Martinez, Defense Communications Agency; William Ridgely, Defense Intelligence Agency; Sandra Young, Defense Nuclear Agency. Contractors--Richard Mellon, Martin Marietta Aerospace; Judy Sauder, AFSC Eastern Space and Missile Center; Susan Weiss, E Systems, Inc.; and Sherril Hisaw, our write-in candidate from Hughes.

Those are your candidates for the five to-be-vacant positions on the User Council. As far as I know, unless anyone on the Council can correct me, there is no stipulation that you have to be present to win. In any case, the ballots are due on Thursday morning at 10:30. There will be a ballot box outside in the hall at the registration desk, and we ask you to deposit your ballots there.

The next item on the User Council agenda is to give you a progress report on the initiatives that we have been working on during the last year. I will give a broad overview of those initiatives and then perhaps some of the Council members would like to get up and address their individual projects in a little more depth.

As has been our practice in the past, the User Council has divided responsibilities among its members to follow certain initiatives during the course of the year. In addition to that, we send a letter to DTIC in the spring of each year--after our semiannual meeting which usually takes place during one of the regional user conferences--indicating a number of concerns that we have and things that we would like DTIC to take a look at in the course of the year. The results are reported at this meeting.

We will say that the consensus of the User Council has been that this year we have witnessed a great deal of responsiveness on the part of DTIC and we're generally very pleased with the results of our inquiries. For example, one of the concerns that we expressed was the need to begin to do something about the

limited document distribution business--a subject that we've been discussing for many years without there ever being much movement one way or another. I think that the DTIC response with panel discussions that are on the conference schedule represents, for the first time, a proactive response to that question. As was stated, they probably will not have the answers--they probably will have more questions than answers--but we need to know what those questions are from all sides before we can begin to find a solution to them. So we look upon this as a very positive first step. I think DTIC is to be commended for taking up the ball in this case and running with it. I certainly urge you to attend one of those sessions.

The other half of our request dealing with limited documents did not meet with such an enthusiastic response from DTIC. We asked them to indicate in the order log, as they do for document orders, that our online Form 55 request had been received. In other words, you could go in the next day and see whether or not it got through all of the impeders that are between you and DTIC--telecommunications, rusty boards in your terminals, etc. DTIC has indicated that "To include on the order log a record of Forms 55 which have been ordered online would require extensive programming by DTIC staff. A critical shortage of ADP personnel makes it necessary to divert resources from other programming efforts..." I'm sure this is true, but we've all heard that song before. The hopeful twist comes at the end of the paragraph, and that is to say that DTIC will consider diverting resources to this requirement if we really think it's necessary.

So it's the mission of the User Council at this point to try and get a feel from the group that is assembled here whether or not you think that this is something that we need to press and pursue, and, actually, ask DTIC management to change their priorities and divert some of their limited resources to do this programming. Of course, we don't know what their priorities are--we don't know what this would involve technically. But is it something that you think is necessary and that we should pursue? The alternative, I suppose, is status quo--if you initiate a Form 55 online and send it in good faith and it is not picked up for whatever reason, you may wait the rest of your days for the results.

LEON BURG, ARMY TANK AUTOMOTIVE COMMAND, WARREN, MI: There is an alternative. At the time that the printout Form 55 is mailed to the releasing agency, a duplicate of the same can be thrown in the mail addressed to the requester.

KENNETH THOENES, NAVAL RESEARCH LABORATORY, WASHINGTON, DC: That was my comment exactly. If we request a document that requires a Form 55, and we haven't completed a Form 55, we usually have a notice back in less than 2 days that we need a Form 55. I think mailing a copy of our Form 55 back to us would get to us soon enough.

HAROLD SMITH, GRUMMAN, BETHPAGE, NY: The Form 55 issue has been my responsibility on the Council. In answer to what you're stating here, there was another request that we had put in. Several releasing agencies had asked if DTIC could, in fact, send them two copies of the Form 55 so that they did not have to reproduce it locally. They could retain one in their records and then

forward the other working copy out to the releasing authority within their agency who had to approve or disapprove. The response from DTIC on that was that it would be extremely cumbersome and very difficult to make an additional copy of the Form 55. I'm sure the same response is going to come back--that they can't make additional copies--to what you're suggesting here. It has something to do with the process by which they use their Xerox machines. From what I understand, it would be a matter of having three or four printing cycles, and then having to combine these.

STERLING ATCHISON, DTIC-Z: We've already decided to make that one additional copy. All we have to do is copy each of the records. If you want three copies--if you want four--all we have to do is copy that number inside the computer. Then take the set with four, instead of one or two, and print it on the printer.

HANSEN: Do I assume then that that means that the requesting organization will receive a copy of that back from DTIC?

ATCHISON: That means that you'll get that third copy that some of the organizations want. I'll have to ask my colleagues if there's any problem in mailing back an extra copy. I'll have to see if it's going to have an impact on Chuck Gould's mailroom and his mail procedures. But there's absolutely no problem producing it.

HANSEN: Okay. I don't necessarily think that the request was generated by any particular affinity for having it online. We just assumed that that would perhaps be an easy way to solve the problem. But if we're going to get copies back in the mail, maybe that's a reasonable solution. We will await word from Mr. Gould with bated breath.

We expressed the idea that the lack of confidence on the part of some originating organizations in DTIC's ability or intentions to secure their documents has led to a misperception in the field that perhaps is contributing to the unfortunate situation whereby some organizations are purposely not entering their documents into the database. We thought that DTIC ought to take up an education program that would allow us to reassure our own organizations, and in general to reassure originating organizations, that, in fact, their documents or document records can be protected, and are protected, in DTIC.

As you heard this morning, DTIC has decided to develop a security module that would be an initiative coming out of the Office of User Services. I understand it's going to take the form of handouts, perhaps video production or exhibit materials--things that could be used to demonstrate to originating organizations that their document records are indeed in good hands with DTIC. I think that's representative of a good response on DTIC's behalf. I would only suggest that before you go to production with any of these training aids that you check with the User Council to make sure that you're telling us the things that we need to be told. I think that those of us who are in originating organizations probably have a pretty good idea of the tenor and the type of information that our "powers that be" need to hear to reassure them, and it may not necessarily be what those of us in the information community perceive as just common sense. It doesn't always look that way to other people. So we do ask DTIC to coordinate that with us, and we would be happy to provide input.

Another item that we brought to their attention was the critical shortage of qualified personnel in technical control. Their response to that particular concern was that they have put some more people in there. The situation has eased somewhat since the spring. However, with the departure of Mr. Zinna, there are once more some dark clouds on the horizon, and I think those users who have perhaps had some technical control difficulties in the past keep in mind that we're not out of the woods yet. I think this is something that the User Council will have to continue to keep on top of--continually remind DTIC this is a very, very serious concern of the user group. Without technical control, when something goes wrong, that's the end of the game.

In our letter we expressed our gratitude for the expanded validation reject messages that were talked about this morning, so that we know what this mysterious validation reject means. It might be somewhat more soothing if not particularly helpful in some cases, but at least you know what's happening to you. We asked that those validation rejects for the unannounced categories that refer to the DTIC Referral Data Bank Directory be so marked so that we'd know where to look, and DTIC has indicated that they would do that--that a program change has been made to comply with that request. That's another example of a positive response from DTIC.

Another item concerned the replacement for the 1634 database. As you heard this morning, Fred Lewis was consulted and instrumental in the events that have taken place recently leading to the program summary database. This is a continuing project, and the project managers at DTIC have asked us to ensure that you are aware that they are ready and willing to listen to any suggestions that you might have concerning what this product should look like or how it should develop. I would certainly suggest that if you have any interest in this area, and I'm sure that some of you do, get in contact with us. Fred Lewis has been following this for us very closely over the last few years. He will not be with us next year, but I can assure you that someone on the Council will have this as their responsibility. So please get in touch with us and we will be sure to put you in contact with the right people at DTIC.

LEWIS: I don't want to prolong this meeting, but I would like to mention one thing. In the last 6 years since the User Council's inception, we've heard all the reasons why DTIC couldn't do anything, as far as the program planning field. DTIC assured us they would not take the database off-line before they had another one ready to go. Well, they did take off the 1634 database and they didn't get another one online until the new regime at DTIC. I think we should give Kurt Molholm, Jerry Milstead, and the rest of the crew that did this within the last few months a hand--it just came online the first part of October. It's refreshing to see what they did, rather than tell us all the reasons why they couldn't do something.

HANSEN: At this point, I'd like to digress for just a moment. The action that we were just talking about--the development of this new database in which DTIC elicited the cooperation and advice of Fred and some of his colleagues in industry--is a good example of how things can work out well. An example of how things do not work out well was made known this morning when we heard about the colored covers on the documents. It has been DTIC's habit in the past, to do

things like this--to simply make changes without letting us know that they're going to change. Another instance comes to mind--when they decided to change the author field from full name to initials. I think they need to keep in mind that those of us out in the field, dealing with our customers on a daily basis and searching on a daily basis, have insights into the value of some of these--not aware of. DTIC really ought to get with the User Council or members of the user group to get some input before these decisions are made, because in this last instance they decided to go back to the old way and put the author's full name back in--2 years later. In the meantime we've lost all the names, and so forth. It would have been much better to simply ask the user group in the first place what the impact would be, rather than going through all the anguish of having us tell them after the fact. So that's for the benefit of DTIC management. I hope you will take it to heart.

Another issue we had during the year was an old one that keeps coming back like a bad nickel--the issue of response time. I think we can all say that response time has improved tremendously over the last few years. Those of you who have been around for a while surely will attest to that fact. Those of you who were around a few years ago will remember that we asked DTIC if it was possible to somehow limit the size of the database that is searched. That is, we talked about splitting the file into segments. We talked about a number of alternatives. The ranging capability came out of that--you can put the 5 years, the 10 years in parentheses and limit your search to those time ranges.

That was a good response but it wasn't exactly what we were after. So we have gone back in and asked them once again if they could look at our original request, which was to have a system default on the "STR" command in the technical report file to the latest 10 years. That is, when you put in your "STR" command, you will be searching only those accessions from the last 10 years automatically. If you are interested in searching the entire database, then you would be required to put in a different command--"STA", "STRA", or something of that nature. They have told us that this is possible, and they are willing to do that, and we honestly think it would help to improve response time even more. Now, the question is, what does the user community think? Is this going to cause a problem for you if you put in "STR" and it only searches the latest 10 years?

LAURA THOMPSON, NAVAL COASTAL SYSTEMS CENTER, PANAMA CITY, FL: It might help if we tell you the reasoning behind this request. We feel that a lot of the users are what we call lazy searchers--they don't think about the timeframe that they want to search or using the narrowest term first. What we are after is for you to take positive measures to search the entire file. That means you don't just default to the entire file, which uses up more computer time. DTIC is also going to allow us to keep the 5-year range and they're going to add a 2-year ranging period to this request, but they must be used on the first level of the search which also saves computer time.

HANSEN: Any objections?

BURG: Could you please explain that more.

HANSEN: We're proposing that when you put in your "STR" command it will automatically default to the latest 10 years. If you want to search the entire database, you will need to put in a different command--"STRA". In addition to that, if you were only interested in the latest 5 years, you could still use the 5 in parentheses on the first level; if you were interested in 2 years, you could use a 2 in parentheses on the first level which would limit it even further.

SHERRIL HISAW, HUGHES AIRCRAFT, LOS ANGELES, CA: I've been thinking about something here while you were talking, and it seems to be the response time in the computer that we're worried about, not the front-end processor. Is there any way to identify the user hogs who make wrong or consistently bad searches and tie up the thing for 3 minutes at a time, and 3 minutes at a time, and 3 minutes at a time? I know DTIC keeps records of how many searches you make and how much time you actually have on the computer. I would personally help these people and I'm sure there are others who would be willing to help also.

THOENES: If a search takes longer than 3 minutes, that doesn't necessarily mean it's a bad search. A good search has nothing to do with how long it takes; it depends on where you're going and a lot of other things that are going on in the system. Very often your tie-up is that you want to get into the same part of the memory that someone else is using. I bomb out a lot of times on 3-minute searches that don't even take up two pages of statistics. If you're working in basic research where you need a very broad background to start a new project, 3 minutes, quite frankly, is not enough computer time. Very often I have to break the search down into 10 or 15 small steps and then recombine them in some way. Many other systems assume you know what you're doing and will allow you to run 10 or 15 minutes on the system. So, just because someone is running 3 minutes on a search does not mean they don't know what they're doing--there are a lot of people who need a lot of data and have to search a lot of things.

HANSEN: I don't think that Sherril meant to say that all 3-minute searches are inefficient and, therefore, these people should be singled out for abuse. I think that what she is saying is can DTIC determine that a small organization--like mine, for example--is constantly and consistently taking 3 minutes and bombing out or masking terms willy-nilly and tying up machine resources so that people who know what they're doing, and doing serious business, are not able to utilize the system. I don't think that we're trying to initiate a witch hunt here, but just to identify those sites that need some assistance in training. I think that's what the tenor of her remark was.

COMMENT: When you're talking about the latest 2 or 5 or 10 years of time, that is not by date?

HANSEN: No, it is not by date. It's by accession number range. It's the moral equivalent, I guess, of typing in all of those AD-number ranges.

KAY KEENER, NAVAL WEAPONS CENTER, CHINA LAKE, CA: On some of the searches we have to do to be very specific, we get into two- and three-page searches rather than using broad terms which would give us a lot of garbage. But we

cannot recall the second or third page and it has to be reentered every time. Now, this is when we have expanded terms and gotten exact terms for what they really want, instead of a lot of extra material. It would help is we could recall the second and third page when we've taken the time to enter it to run across several databases. My problem with response time has been when you are printing and you've waited 3 or 4 minutes between pages to be able to type new data. I don't see why, unless the system is awfully busy, we'd have that lack of response at that time.

NORMA AYALA, DTIC-Z: We're researching recalling the entire search strategy for you. We'll know soon whether we can do that in a reasonable amount of time.

ATCHISON: The purpose of my remarks this morning were not to try to limit what you're doing. I was trying to explain that if you want a fast search, there are some things that you have to do for yourself. I wasn't trying to save our computer resources, and I wasn't necessarily trying to protect the rest of the people who are trying to get into the computer. So, I hope it wasn't taken that we were starting some kind of witch hunt looking for people who don't know how to search.

MARGARET O'DROBINAK, EDWARDS AIR FORCE BASE, CA: We've expanded as a group so rapidly--with a lot of dial-up users--and I'm hearing that there is a need for more training so that we can improve our search strategies. However, the lack of training at regional sites makes it a little difficult, particularly when you have a lack of training dollars and you have several people at your site that you would like to send to training. It would be better if we had more frequent regional training and modules at our sites in the field to assist in improving our strategies. We keep hearing about a new manual for the dedicated sites and have not seen it. We need some of these tools.

PAUL KLINEFELTER, DTIC-B: The manual for dedicated training is now drafted.

JAMES FARRISS, U.S. ARMY ITAC, WASHINGTON, DC: Jim DePersis and Laurie Lubsen have done a fantastic job for those who have had direct hands-on experience with them. Since our training funds are somewhat limited, DTIC might think, if they haven't already, of putting these good folks on videotape for retraining back at home sites. This would work particularly well where the lead person has already been trained. This would even benefit us here in Washington--everybody is working and it's hard to spring loose.

LEONARD SILVER, PLASTEC, DOVER, NJ: Somebody told me that an alternate way of searching the last 1, 2, or 3 years of the technical report file would be, instead of adding the parentheses, add numbers at the end. Use the term "and" and then "? 24% 85" and you would get all the documents for the year 1985. If you wanted the last 2 years, you'd search "? 24% 84", and the same thing down the line. Can you confirm that?

JAMES DEPERSIS, DTIC-B: No. Remember you're going against the report date when you put that level level in. If you put in your parentheses, you're going against the processing date. So you're really doing two different things.

SILVER: But will you end up with the same thing?

DEPERSIS: No. Remember, the "(2)" will give you anything we processed--any documents we received--within the last 2 years. If you put in the report date, the percent, 84, 85, you're getting documents that were written in 84 and 85. It's like mixing apples with oranges.

COMMENT: Also, the "? 24" does not reduce computer time, it takes more time. Using the parentheses takes less time.

HANSEN: I have another item that has been brought to our attention that has to do with something we've talked about in the past. Betsy Fox, the chairperson of the Resource Sharing Advisory Group (RSAG), has asked me to ask you about the combined frequency count. Those of you who have been around for a while might even have one of these ancient things. Maybe you use it. The question is, do you use it and do you need it? Do you know what it is? Can anyone say anything in favor of the combined frequency count?

JOYCE VAN BERKEL, SANDIA NATIONAL LABORATORIES, ALBUQUERQUE, NM: We have the old one, but of course it's very out of date. Since I use primarily the technical report file, I use the "display inverted file" command to see which terms are in the database. I'd like to know from those who say we need it, what it would do for me that "display inverted file" will not do.

HANSEN: As far as I know, the only thing it will do for you is tell you the number of times that a particular term has been used, which would give you a better idea how to construct your search strategy. I don't use it, but I assume that's the way that it's used. If someone else has another use for it or can explain that better, please tell us about it. There is a very vocal group who thinks that this is very, very important document, and then there's a great massive indifference. And I think the question has to do with it being a very, very expensive item to produce.

CAROL FINNEY, DTIC, LOS ANGELES, CA: Like you, even though I am a DTIC employee, I am a user. I have a dedicated terminal and maybe this will help some of you who think that a voluminous group of books is a help, maybe it will help a little to understand. The "display inverted file"--DIF--is a very good command and you can get an up-to-date idea of the terms that are available to you by using that command--you do not get the numbers. You can also get an idea of the numbers that are available to you by looking to see how many databases the term is in. When it's in both databases you get an idea that there are quite a number of terms that might be useful to you. However, if you know the posting terms and the descriptors that we have, you'll know that these are the bona fide terms that you really want to use in your search. The others are more or less little additions and maybe they won't be covered by the types of terms that you use in your strategy. You will get them in most cases because it's

DTIC's policy in indexing--it has been, at least in the past--to cover add terms with a bona fide search term. So I would say that, speaking as a user like yourselves, I would be willing to forego having to get that frequency count out of the safe, which I have to do just like you, and keep it in a separate place to help my search when I'm really in a hurry to get a search done.

COMMENT: In defense of the frequency count list, it's supposed to be a living vocabulary where new terms are being added and some are discarded. When you get this book every year and you see that something has been used one time in the last 15 years, you might discard that term. It also helps us to build a thesaurus. That's the way we use it at PLASTEC. If you see something has been used 1,400 times then you know it's a term. We try to limit the number of terms we use to identify a document

SMITH: I'd like to clarify something for some of the people in the audience. Most of us who have dedicated classified sites are familiar with the combined frequency count because it is a multi-volume Secret collection. I'm afraid that many people in the audience who are either new users to DTIC, or specifically new online users, are not aware of what we're talking about when we say the combined frequency count. The combined frequency count basically is this classified multi-volume set that initially was made available--I'm not sure if it was made available automatically to unclassified dial-up sites--to classified dedicated sites when the system was first put into effect. We users of dedicated classified sites, certainly in the beginning, made very definite and daily use of this set of volumes. I have a safe right next to my terminal that this material is stored in. True, with the introduction of "DIF" and other resources, we don't use it as frequently as we did several years ago. I, for one, am a supporter of the combined frequency count and would like to see a new edition of it produced.

MARTHA KNOTT, NAVAL OCEAN RESEARCH AND DEVELOPMENT ACTIVITY, MISSISSIPPI:

Some of my users require statistics, so I display that second page as a result of my search. That gives me a count of how many times that term is used in that data bank. When I find that the term has a low number, I may reconstruct my strategy. Maybe you can use that in lieu of the combined frequency count, because, I'm assuming that's kept up-to-date.

HANSEN: I think that's probably correct, but, unfortunately, the unclassified users don't get those numbers.

I think perhaps that's a problem--that people are not clear what the combined frequency count is. The combined frequency count is basically a list of indexing terms. It lists for each database how many times a particular term is used.

DENISE RICH, GENERAL ELECTRIC, PHILADELPHIA, PA: Can you add the frequency numbers to the inverted file that's displayed?

HANSEN: This multi-volume set is Secret because it has those numbers. That's the only difference between it and what you see online, as far as I know. I suppose the rationale for that is that the bad guys, if they were to get hold of that information, could judge the trend of our research efforts, and so forth.

RICH: I also wanted to ask the User Council if some of the issues that we're discussing here today could be voted on through something in the mail. I realize that there are a lot of people that don't come to this meeting and they maybe don't have a say. You were talking about limiting the TR file--I don't think we resolved that. There are a couple of other issues here like the frequency count. Maybe it would be good to put them to a vote out in the field and get all the users, rather than just the ones that are here.

HANSEN: First of all, I don't think we're going to make any decision as far as the frequency count is concerned. What you say is probably correct, but in the tradition of a republican--with a small "r"--government, as opposed to a democratic government, if we had to go to the entire user community and get each one to answer on every single issue, we would never get anything accomplished. We assume that as representatives of the user group, the User Council is given a certain mandate to exercise their own judgement in these matters. This business of the response time was something that was brought to us. I suppose we could have gone ahead and just made a decision on our own, but we judged that it was an issue that we needed to bring forth to a larger group for consensus. We do publish these things in our newsletter.

RICH: Yes, I know these things are published in the "Inverted File." That's exactly where I would like to see a page included that says, "yes, I'm in favor of this," or "no, I'm not in favor of this." It's just a thought. You're sending out that mailing anyway; why not get some feedback from a larger audience.

HANSEN: I think that you will find that in virtually every issue of the newsletter, we list the names of all the User Council members with their telephone numbers and ask that if any of the users have any comments or questions they contact a User Council member directly. It seems to me that that's about as democratic as we're going to get. But we'll look into that--maybe a tear-off on the back that you could write a comment on.

COMMENT: Back to the frequency count list again, every time you use an index term, it's going to show up at least as one frequency count in any future publication. And there may be a few hundred terms that you're sorry you put in. So over the years, you can update the frequency count list by a file maintenance program deletion command, and retyping in all the index terms and leaving out the ones that you don't want. You can constantly upgrade the frequency count list and develop your thesaurus--not just putting terms in but taking terms out over the years. That's where it's value comes in.

HANSEN: Again, I brought this up because the chairperson of RSAG asked me to see if it was still an issue. I guess for some of us it is still an issue. But I have a corollary question for those of you who use the combined frequency count. Would you object to it in microform? Would you be willing to accept microform as a compromise to nothing?

KURT MOLHOLM, DTIC ADMINISTRATOR: I wanted to keep out of this; however, I was the one who asked RSAG to make this review. The background is that RSAG asked that this combined frequency count be put into microfiche through a COM process. It's a classified document. Is it worth all the handling for what was the perceived benefit? I haven't seen that it is. The cost is not only the cost of producing it, but the cost of handling and maintaining it. The real issue was whether or not we would put it in fiche--or whether or not we needed it if, in fact, the online commands that you already have available help you do essentially what you need to do. Obviously, you can fine tune, but is the cost of fine tuning worth, in terms of handling and producing, the benefits?

SMITH: I have one question regarding that. Is there any problem with those of us who have dedicated classified sites getting the posting numbers when we "display inverted file"?

MOLHOLM: Yes, we could do that.

SMITH: Since many of the users of that document are, in fact, dedicated classified sites, we might be able to have access to it online without printing and publishing anything.

MOLHOLM: We've now gone beyond what the real question was--whether or not we should put it on microfiche. I'd like you to go back to your organizations and ask that question. If you're looking for alternatives, we can look into those, if you want to make that part of your request.

O'DROBINAK: I confess to being a supporter of the combined frequency count even in microfiche. Kill me. But I've asked for this and I'll tell you the reasons. Even if you have a dedicated site, you've got to remember you only have one terminal. If you have multiple uses for your terminal, you only have one person doing searching and receiving results at one time. If you have additional needs and you have to be formatting a search, that combined frequency count, whether on paper or microfiche, gives you a capability of dealing with formatting searches. There are times when you are not up and you are not online; there are times when you have to have communications gear worked on and you're down--you may be down for some time. Even if you get one of your related organizations to perform a search for you, you have to send them some kind of a structure for the search that you want. The combined frequency count allows you to do those things. It will allow you an extended capability for your cataloging in your own descriptive cataloging onsite. It will allow you to work with users who cannot have access to your classified terminal site. It will allow unclassified dial-up sites to have a classified document to work with that they can't receive online. These are some of the reasons I would propose concerning the combined frequency count. If, in fact, it turns out that it's just too costly, that could be understood.

HANSEN: Thank you, Margaret. I think the answer to my question, at least, is yes, it's still an issue. DTIC needs to look a little bit closer before they leap on the combined frequency count.

Just a quick comment about document turnaround time. The User Council conducted a survey during the course of the year. We sent out questionnaires to 100 user sites across the country and asked them to keep track of their document turnaround time. We got responses from 36 users. The results of the survey are that we have seen a dramatic improvement in turnaround time in the last couple of years. The improvement, however, is not quite what Mr. Gould mentioned this morning. I think what we're going to do is forward the results of the survey to him and to DTIC for their information. The point of the story being that we're watching you! If you're interested in the survey and would like to see a copy, we'd be happy to provide you with one if you'll contact us afterwards.

The next item I'd like to discuss you'll remember from the "Inverted File" newsletter. We had asked if anyone was having difficulty with reregistration. The way this came to pass was that one day I sat down at my terminal and realized that I had been summarily dropped from the system. I wondered what had happened, and of course the story was that DTIC sent me the form and I didn't respond, so therefore I was dropped off the system. Well, my response to that was I never got the form. We can point fingers at each other and make accusations, but that certainly is not going to solve the problem. So I put this note in the newsletter to see if this had happened to anyone else. Sure enough, it had happened to a couple of people. That's not to say that there's an epidemic of this going on. But it certainly is disconcerting, particularly at the very moment when some VIP has come in for a demonstration on your terminal and you're trying to tell them why DTIC is so wonderful and great. You put your terminal on only to discover that you have been dropped out! That's the way it happened in my place. And I was not pleased. Not only that, but it took me a week to get back online again, which was very embarrassing. If anyone did not see that particular note in the "Inverted File" and has had experiences like this, I surely would appreciate it if you would see me sometime during the conference and let me know.

The User Council is going to recommend to DTIC that they take a look at some of their procedures. Maybe there's some fail-safe mechanism that we can insert when you don't respond to your notification--you can be given a call or something of that nature. If you're familiar with the form that is machine-generated, it tells you that it's time for you to sign up again. It's the same form that comes to tell you you need to submit a Form 55--it just has a different message on it. I think what happened in my case was that the form was caught up in the dragnet and one of our local users got this form in his hands that said his service was going to be terminated and he had no idea what to do with it. Maybe we need a form that's a little bit different. Anyway, we're going to ask DTIC to take a look at that.

In conjunction with training, we heard this morning from Mr. Deadwyler, talking about the fact that we need to educate ourselves a little bit better on the use of DROLS, and Fred Lewis on the Council has also expressed concern. We're going to ask DTIC to think about coming up with some programs for next year's annual conference, and maybe in the training sessions during the spring meetings, that will give us some advance training in the management databases with a little more emphasis on how all the files can be searched to come out

with the best results. I think there's a great deal of misunderstanding of the management data files among the user community. I know that I personally don't use them that much, and maybe I should because I don't realize what the potential is. I think it's a very important issue.

THEODORE PFARRER, NAVAL TRAINING EQUIPMENT CENTER, ORLANDO, FL: I'm a dial-up user and I have a couple of questions. I don't know whether my particular terminal is the only one in the world that acts the way it does or whether it's a more common occurrence. Periodically I have communication problems with DTIC and 99.9 percent of the time it's caused by an underscore character appearing as the first character, which I didn't transmit. But somehow or other it gets into the DTIC computer. For example, if I put an "and" term in--if it is underscore "and"--it acts like an "or" and everything in the search is "or'd" together and I get 10,000 results which shouldn't be. I never know whether that underscore character ever got through. I don't know if anybody else has this problem, but if it's not just me I would like to recommend that the communication equipment be programmed somehow to ignore an underscore character. When I ask technical control to check it, they say they're receiving an underscore. I know I'm not sending it, but nobody will check to see where it's being developed and this is a progressive thing. I'll go 2 or 3 months with no problem, and then it will suddenly appear once or twice in a search and it keeps getting more and more frequent. Then all of a sudden it disappears and somebody has done something and it works again for the next couple of months.

HANSEN: I think this is a problem that is probably more extensive than simply with the dial-up users.

PFARRER: I have a different topic. Periodically I'm requested to send in a request for a current awareness continuing report. I know that you're coming out with one request form that will take the place of all of them. But is there anything that will tell you in detail how to fill the form out and what the different options will do for you or against you? There are a lot of little blanks on the forms and I tend to ignore them because I don't understand what they're for. I get results, but I don't know whether I'm getting the best product or something less than I could get.

HANSEN: I would suggest that you put that question into written form and then submit it to DTIC, and then they'll be forced to find an answer for you one way or the other.

Another point that is brought to mind from what you have said, many sites have experienced difficulty in technical problems and I guess you could best describe it as the finger-pointing syndrome. That is, technical control says it's Western Union, Western Union says it's AT&T, AT&T says we've been divested so it's their fault, it's UNIVAC's fault, etc. We're going to recommend to DTIC that they consider creating a new position that would be a high-powered technical troubleshooter who would be able to solve these problems for us. We're going to put them on the spot by putting it in writing and see how they respond to it. It's for things exactly like this that we feel that there is a need for a full-time troubleshooter, and it's not just with the dial-up sites. It's with everybody. We need somebody who knows telecommunications, computer systems, cryptographic equipment, and all that good stuff.

RICH: I just wanted to comment that I, too, get spurious characters. I am coming in with an IBM PC, a smart modem and crosstalk. When I was coming in through TYMNET using a dumb terminal, I was not getting these spurious characters. I don't know what that says, but I come through both pieces of equipment and I only get them on my PC. It does cause a problem.

HANSEN: I suggest that you collar some of these DTIC-Z people before you go.

COMMENT: I've been working with a terminal for a number of years and have some experience. Once in a while the terminal goes down and you get the response from DTIC technical control that the data is caught up in the AT&T lines. They check it out, we're down for a day, and the next day the problem is solved. There was one time that we really had a problem for an extended period, and the UNIVAC service people couldn't find it. Then they did something that they normally don't do in servicing. They took the multiplexer and they found out that the voltage wasn't 100 percent. It was just slightly wavy. It seems that if you have the power to send the message out, you can overcome a data hang-up on the long lines, so this is something that might be overlooked at the dedicated terminal site.

HANSEN: I know that's a fact because we had that same problem, and as a result we had a new circuit put into the building that has our terminal on it alone to prevent these fluctuations of voltage.

ATCHISON: I recognize there's a problem. I hope I can get some help somewhere.

HISAW: Len Silver's remarks reminded me of something. When you put in a truncation on a date or on a short phrase, you still get "do you really want to do this." Then you say, "yes, I really do," and then you wait again. It's another response time problem to continue your search. Is there a real need for that question? Trust us. We usually know what we're doing with the searches.

HANSEN: This is not the first time that question has been asked and it probably won't be the last, but we will surely include that in our written request. This is very much like the request when you order your documents, and at the end it says, "do you really want these? They're going to cost all this money."

RICHARD DIESLIN, MTIAC, CHICAGO, IL: One thought along the lines of getting a technical person in that can troubleshoot. We had a lot of problems along this line and I think that DTIC was doing everything they could. We finally resolved it by convening everyone at once so there was no finger to point anymore.

HANSEN: The rationale behind our request is the fact that in the past, although Mr. Zinna had all of the right qualifications to troubleshoot the system, he also had other things to do for a living. And his job description did not involve being--as far as I know--a troubleshooter. We're talking about somebody who does that at least full time.

DIESSLIN: I'm all for that. I might suggest that for that position to be effective, if it did get implemented, they would have to have the ability to convene everybody at once. An individual by himself isn't going to be able to resolve these problems in most cases because they're going to get the same run-around we do individually.

EILEEN COLLINS, ARMY NATICK R&D CENTER, NATICK, MA: I'd like to put a plug in for the DTIC personnel who solve some of these things--technical control on up the line. I had a very unusual problem last week and I would get zero to everything I put in, and a very weird format would come back on my display. In working with technical control people, among others, they had someone stay with me for 2 1/2 days constantly. We exchanged phone calls probably every 1/2 hour trying this and trying that, and they got me back online working the way I should. I would just like to say that if you work with them and are patient, you will be helped.

HANSEN: As I said at the very beginning, our comments are not meant to be simply critical of DTIC. We all think DTIC does a great job. We look upon our comments as being constructive, and I think that all of us will agree--obviously from the applause--that they do the very best that they can. But there are some cases that we could cite that were not so easily solved where the problems went on for months and months, and they finally required the dedicated attention of Mr. Zinna personally to be solved.

CAROL RAMKEY, COMMAND AND GENERAL STAFF COLLEGE, FT. LEAVENWORTH, KS: I'd like to get back to the "? 24" beginning with the year as opposed to using the "(5)" or "(2)". First of all, I'd like to know do a lot of you use "? 24"? Not very many of you do. We use it a lot and we don't care that it takes more computer time. It's extremely valuable. If you use "(5)", and DTIC just input a document that was published in 1966, that's going to be the first thing you get out. When an officer asks for what's been published in the last 2 years, I don't want to hand him a printout where the first thing listed is something that was published in 1966. If you use "? 24" beginning with 85, or "? 24" beginning with 84, you'll get a much narrower, neater search--so what if it takes more computer time? We use the "(5)" for quick and dirty searches to get an idea of what's there, but when we're really looking, and when somebody wants current information, then we'll use "? 24" beginning with a year date, and use ranging that way.

HANSEN: The point is well taken. The other side of that coin is you don't have to use it that way all the time if you don't need it.

COMMENT: If you're only looking at the last few years it will still go back through the entire database unless you put in "(5)". It only does an AD range in the first level unless you put in that "(5)".

HANSEN: So what you're suggesting is use both? Is that the most efficient way to do this Jim?

DEPERSIS: That's right. Putting in "(5)", you're going to automatically only go into the last 5 years of processing data. And if you know it's something written in 84 and 85, it couldn't possibly have been processed 5 years ago. So putting a combination would make for a much faster search.

HANSEN: What he's saying is if you want to use the roll code 24 to search for a current year, it's best to put in both the "(2)" and the roll code 24. Then the qualification, so to speak, against the date is only run against the items that have been entered in the last 2 years. So use both.

BONNY HILDITCH, APPLIED PHYSICS LABORATORY, BALTIMORE, MD: I was searching on DTIC a couple of weeks ago and a message flashed up on my screen that said, "Unsolicited message available." I didn't know what to do so I ignored it, but I have no idea where this message came from and I'd love to know what to do about it the next time it appears.

HANSEN: Has anyone else ever had that message? Is this a dial-up?

HILDITCH: Direct dial, not through TELNET.

HANSEN: Does anyone from DTIC have the answer for that?

MILSTEAD: I'll investigate. That's the first I've heard of it.

VAN BERKEL: I have another one of those "has this ever happened to anybody else" questions. We have both a dedicated and a dial-up site, and I wasn't on top of how often our passwords were changed on the dial-up system. We never got them, and I didn't know we never got them, and we couldn't get on. It took me a long time to realize I had missed a change in passwords. Has that happened to anybody else? Can we have a message put on the system to let us know that passwords are going out?

HANSEN: What does it look like when it comes in the mail? It isn't one of those "little forms" is it?

VAN BERKEL: It's one of those little envelopes, and inside the envelope is a little, tiny card stapled to a piece of paper. Our envelopes go all over our facility, and I'm lucky if I get a third of them.

MILSTEAD: We're required by regulation to change the passwords randomly at least once a quarter. So we randomly change the passwords. All the new passwords are sent certified mail, and are sent to the exact address you have given us to put in our files for your online mailing address. So I don't know why you should encounter difficulty receiving them. Perhaps you need to change your address with us to see that they get to you.

VAN BERKEL: Would you like to hear about addresses?

MILSTEAD: Not really, but I'm sure I'm going to anywa...

VAN BERKEL: When this business of the new qualification for seeing material that export-controlled came out, we were told we had to have an address that had a person's name--not an organization, not a location. We were forced to change our mailing addresses and, unbeknownst to us, that became the official mailing address for our site. We had a terrible time. We did get some help though. When I called in we got some very helpful people who tried to straighten this out for us, but for a while our mail was practically anonymous--it had a person's name, no organization, no mail stop, nothing. We had to really work hard to get those things straightened out. That one address has to be used for every product we get from you, and those products don't all belong in the same place. So we have a real problem.

MILSTEAD: The address I'm talking about is a separate file we maintain in the online support office that we use only for communicating with online users. Now, it's true that your products have to be sent to whatever address you have registered for your user code, but the online mail that is sent from the Online Support Office will be sent to any address you give us.

VAN BERKEL: My name was on that file, but I never got them. And I didn't know I didn't.

MILSTEAD: I'll check your address in our file and make sure it is still current.

VAN BERKEL: I finally did get the duplicate because I called. But I'll never know that I didn't unless I can't get on the system.

COMMENT: Maybe they should be sent registered mail.

ATCHISON: Well, if that will improve the situation, we'll do it that way. Because we do not want DTIC terminal passwords floating around out in the open. Would anybody who's had this problem send a card to Jerry Milstead letting him know.

HANSEN: This is in line with our request that they establish a failsafe procedure for these things, rather than just drop you off the edge of the earth.

CHARLES GILES, GENERAL DYNAMICS, ELECTRIC BOAT, GROTON, CT: I don't have this problem because since it's an official use only document it's delivered to my desk. I think what we're doing here is great. Since I need hand-holding and search strategy help, I would like to see regional workshops. I'm a private in the world of generals and there's a war going on. I'm hearing all these phrases, and I open my book, and I look, and I punch in, and I'm able to do a little bit--but I have a number of Ph.D.s who insist I could do more. I need some help, and once or twice a year doesn't seem to be enough. Is that a possibility? Separate from the usual, regular meetings, is there another step in the process? I don't think this is a DTIC problem--I'm thinking of a user-related activity. I think we users need to get together.

HANSEN: I'm afraid I don't understand what you want us to do.

GILES: I would like to have the people in my region who are also dial-up users get together. We probably have someone who is very familiar with all this who could hand-hold some of us who aren't.

HANSEN: So what you're talking about is a regional user group that would communicate on a regional basis?

GILES: Right.

SMITH: I don't know what section of the country you're from, but a while ago I requested from DTIC a listing of the respective people in the northeast region of the U.S.--the section that I'm from--hoping to attempt to do what you're talking about. Send out a mailing individually to the DTIC users in that region, saying might we have some informal meetings or discussions about how different things, maybe some helpful hints--a very casual, informal type arrangement. This sometimes can be the best training session in the world. I might suggest--and I really don't want to speak for the entire Council--but maybe as a first step you could contact a Council member in your region and discuss this. And possibly between the Council member and yourself and some other interested parties in your area, an informal group could be established. I know that DTIC will isolate and provide you with a listing of the people in a given region.

HANSEN: We would be more than happy to look into that if you will contact us. Again, for issues of this nature, that's what we're here for. We'd be happy to hear from you if you'd give us a call.

HISAW: Maybe it's not proper, but out in Los Angeles I have brought in about a dozen people over the last couple of years and spent about 3 hours with them at the machine, and we went through every phase of the work unit, program planning, and the technical report databases. We actually worked really heavy for 3 hours, and when they walked away they were very comfortable with the system. I'm sure there are a lot of experienced users all over the U.S. that could spend 3 or 4 hours a month with a new user if they'd just volunteer.

FINNEY: I'm in Los Angeles and our office is more than willing to help anybody. We do dictate search strategy at times. So please give us a call.

HANSEN: We're rapidly running out of time. However, before we go I think Laura Thompson has asked that we at least take a vote on the question of the response time issue where we will recommend to DTIC that they go ahead and initiate the system default to 10 years for the "STR" command, add the "STRA" command for the entire database, in an effort to reduce response time. If you are in favor of that, would you please raise your hands? Anyone opposed please raise your hands. Sorry, Leon. You lose.

AYALA: Since you've been so nice about that vote, we're going to implement that on Monday.

HANSEN: It would almost appear that there was an element of collusion here, and I assure you that there was!. That's response time for you.

GARY CLAYPOOLE
Directorate of Telecommunications and ADP Systems

Welcome to the session on DROLS Communications. My name is Gary Claypoole, and I am responsible for the DROLS software communications system. I want to thank Sue Ruddle and Mike Sullivan for the work they did to install the hardware that's necessary for the conference, and invite you to visit the demonstration room during the conference.

The purposes of this session are to review the communications process; describe the software analyst support that we give to the system; describe the functions of the front-end processor (FEP, or DCP-40); review recent communications accomplishments; review projected enhancements for the communications system; and answer any questions that you may have.

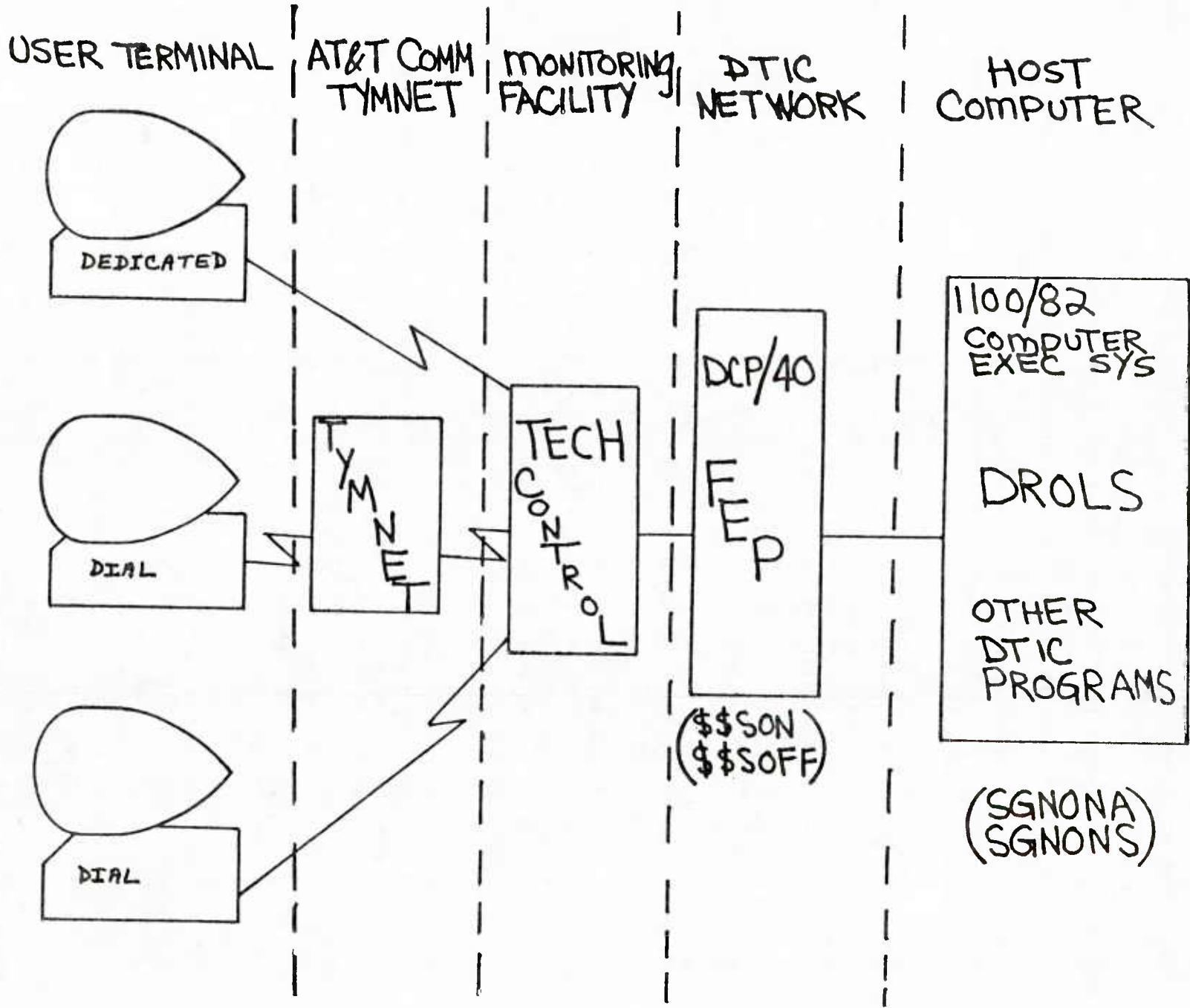
Let me start off by saying that your contact point for trouble situations is the Technical Control Facility. Their number is 202-274-7251 or Autovon 284-7251. When you talk to them, describe your problem. If a message comes back to your terminal, let them know what the message number is--ON-9 or ON-7 or whatever-- because that number directs us right to the problem. It will speed up the whole process.

Chart 1 shows how data flows to and from DROLS. On the left-hand side is the user terminal. Whether it's a dedicated connection, dial-up through TYMNET, or direct dial asynchronous or synchronous, it will go through Mike Sullivan's monitoring facility--the Technical Control Facility. The Technical Control Facility can always monitor the data that's coming from your terminal. When you're having problems, that's the place to call.

All the data flows through the Technical Control Facility, and then to the DCP. At that point, when you enter your "\$\$SON" command, you're talking to the front-end processor. Using this command you're trying to activate, and the front-end processor will go through a validation process to make sure that you're a legitimate user. If all the connections are proper, you will be connected to the host system--the 1182 computer--where the DROLS system resides. So, until you get through the DCP with the "\$\$SON" command, you haven't talked to the UNIVAC 1100 system.

When you do get into DROLS, you'll activate by using the "SGNONA" or "SGNONS" transaction command--depending on whether you are asynchronous or synchronous. Again, if some controls are not proper, i.e., if you enter the wrong ID, you'll get a response that tells you what the problem is. Hopefully, everything will go right and you'll go right into the DROLS system. All these iterations and sign-on commands are necessary for the security control that we are required to have.

The software support is provided by Ms. Ruddle, Ms. Suda--who has been a recent addition to our team--and myself. We are responsible for maintenance of the communications system configuration. We modify the configuration when a



user changes equipment or when new users are added. I'd like to remind you to give us a call if you are changing any of your equipment. This will allow us to keep our records updated and determine if anything that you're adding requires us to change our configuration.

We are also responsible for modifying the system access tables to change the passwords for the dial-up users. There are about 600 to 700 dial-up users, and every one has to be tested. They're not all changed at one time, but it is still a big job for us.

Our main responsibility is troubleshooting problems reported by users, DTIC computer operations, or the Technical Control Facility. All the calls that Technical Control or the Online Management Support Office cannot handle get referred to us. Often it's something as simple as a user having trouble entering parameters for a PC package, or it may be something major such as a modem, or the terminal itself, going haywire. We support all the hardware technicians, the Online Management Support Office, and we work with users to resolve problems they may be having.

Chart 2 shows the front-end processor functionalities. The purpose of the front-end processor is to process data for DROLS. It can communicate with other computers, cluster controllers, and--in our case--the terminals or personal computers that are used on our system. It can handle data at a very slow rate--as slow as 45 bits per second--or it can handle it extremely fast. It has 250 user ports and each one has the capability of being configured independently. We are responsible for keeping each one of these ports configured for your use.

A port configuration includes such things as the line speed, terminal type, address, etc. It also validates each user--when you use the " \$\$SON" command, it validates to see that you are a legitimate user. If a valid user is found, it will establish a session path to the host computer. When you sign on now, you'll see a message "session path open to TIP." You've now established a path to the host computer. It reacts to any of the " \$\$" commands. It also has the capability to broadcast a message, for information purposes, to any terminal that is active.

Last year we discussed some of the goals that we had for this coming year. In looking over what we had projected, I find that we met all except one of them. The one we have not completed is the 3270 protocol.

- o We implemented the broadcast feature from FEP.
- o We corrected the detach count error--the situation where a line would get hung up and a lot of users would be sitting there not getting any response.
- o We implemented the auto data rate detect.
- o We installed additional 128 mega-byte memory for the DCP.
- o We installed the additional backup disk unit and the IOU on the host system.

FEP FUNCTIONALITIES

- PURPOSE
 - COMMUNICATIONS PROCESSOR
- CAPABILITIES
 - PORT CONFIGURATION
 - USER VALIDATION
 - SESSION PATH
 - MESSAGE (TRAFFIC) MANAGER
 - LIMITED COMMANDS
 - BROADCAST

Some of our additional accomplishments for the year are:

- o We installed 2400 baud for TYMNET users. You can now come to us on 300, 1200, or 2400 using TYMNET.
- o The automatic data rate detection is available through TYMNET. Any port that happens to be open will detect whatever rate you're trying to transmit at and it will sync up with you.
- o We added additional TYMNET ports.
- o We implemented the network broadcast. If the host system--the system where the applications program runs--goes down, we're able to communicate to you through the DCP with this capability.
- o We upgraded the communications operating system in the front-end processor to what we call TELCON Level 5. Sperry is the vendor of this product, and as they continually modify their communications system we try to upgrade with them to incorporate the new features that are available. TELCON-5 has a few new features. One of these is that it will disconnect any inactive asynchronous terminal that is tied to a port and inactive for 15 minutes. This makes the ports available for others who are trying to get in.
- o We corrected the asynchronous timing problem affecting Form 55 input. When you did not get your data into the system within a certain period of time--approximately 50 to 60 seconds--you were likely to end up with a DI-10 message. A timing factor caught us. Once you started sending data, there was a timer that started counting and if you hadn't finished your transmission within this timeframe, it would transmit what you had already sent and caused us to lose what we call conversational link. The DI-10 message is the indicator that a conversational link has been lost, and you had to retransmit your data.
- o We installed an additional DCP/40 cabinet.
- o We expanded memory.
- o We installed the backup disk storage unit.
- o On the host system, we installed the second IOU and expanded its memory.

The following enhancements are planned for the coming year:

- o We plan to install direct dial with the auto data rate detect. Now, it's only available through TYMNET, but we intend to put it on direct dial which will make it much simpler. With this change you'll be able to dial one number and sync up with whatever port happens to be available at that time. Right now we only have three ports that are configured to 1200 baud and eight ports configured to 300. This way we'll be able to handle whatever rate your system uses.

o We plan to be able to handle 2400 direct dial. We can handle 2400 through TYMNET now.

o We plan to finish the 3270 protocol early next year.

o We're in the process of replacing some old, outdated mass storage devices on the host system that have been causing problems over the past few years.

o We'll be updating the host system with state-of-the-art peripheral equipment.

o The new disk subsystem should be installed in early December.

The auto data rate detect which is available through TYMNET is, in some cases, inconsistent in making connections through TYMNET. In other words, you don't always get the message "enter network sign-on." Once you dial into TYMNET and make your connection, TYMNET is actually sending a sampling character to the front-end processor. It uses that sample to determine what rate you're coming in on and tries to set up a communication link. Sometimes it fails.

We know that there are some problems, and there are several possible solutions. One solution would be to slow down the time between when you get the port assignment and when you get the message "enter network sign-on." Additional software programming is another possibility. A third alternative is to have the user enter a code from his terminal instead of having TYMNET do it. If you have any opinions on that, let us know. If we have to change anything, we'll let you know well in advance so that you're well familiar with what has to be done.

If asynchronous users make a mistake and hit a wrong character when they're using the "\$\$SON" command, the FEP will not accept it. You might as well just hit carriage return and start again. The FEP has to have the exact sequence at that point or it will not sign you on.

A lot of users are now going to personal computers and they need a software communications package to talk to the system. Chart 3 gives you the basic required parameters necessary for that software to work. The baud rate can be whatever it happens to be--if you want to go 2400, that's fine, too. The terminal is half duplex and modem should be full duplex. The character format is seven data bits and one stop bit; parity is even. A lot of the software has the capability for automated line feed and automatic carriage return. For our system, we need both of those turned to the off state.

QUESTION: Can you operate at 1200 or 2400?

CLAYPOOLE: If your modem is capable of doing it, yes. But you'd have to use TYMNET for 2400 baud at this time.

QUESTION: How about UNINET?

PARAMETERS FOR PC COMMUNICATIONS

BAUD: 300/1200

DUPLEX: HALF

[MODEM: FULL]

CHARACTER FORMAT: 7 DATA BITS 1 STOP BIT

PARITY: EVEN

AUTO LINE FEED: OFF

AUTO CARRIAGE RETURN: OFF

SAMPLE

SMARTCOM II HANDOUT

CLAYPOOLE: We're not connected to that, only TYMNET.

QUESTION: Do I have to identify the system any differently?

CLAYPOOLE: There are certain requirements that you have to use with TYMNET, yes. But it's not different. You're making your computer act as a terminal with that software, so you don't have to identify it any differently. The proper parameters have to be set in your communications package.

QUESTION: Are you going to speak about the software?

CLAYPOOLE: This chart just shows a sample from SMARTCOM of the type of parameters required. These are the basic types of parameters that you need to set in. Most of the other things are independent for the particular system that you're using, and we should be able to operate with them.

QUESTION: If you connect to 2400 baud, will it automatically reset back to 1200?

CLAYPOOLE: No, it will only connect at the baud rate that your modem is set at.

QUESTION: The modem I'm thinking about has a provision where if you're operating at 2400 and you're having troubles, it will default back to 1200.

CLAYPOOLE: I'm not aware of that. Because it's already synchronized at one speed, I don't think it would. So it would have to deactivate the line and resync. Now, if your modem does that, I would think in that case that you would also have to sign onto the system again.

QUESTION: At times, I have waited 10 minutes before I get the "enter network sign-on."

CLAYPOOLE: We admit there is a problem. But not to 10 minutes. If you haven't received it within 2 to 3 seconds, most likely you're not going to get it. You'd be better off hanging up and dialing in again. One of the possibilities is that we could extend that delay time 10 to 12 seconds. That might or might not be acceptable--it leaves you in limbo. The alternative to that is that once you get the port assignment, you would send a character. As it is, TYMNET is doing that for you. If you send the character, it would be instantaneous after that. That may be the route that we're going to have to go. We tried it this way so there would be no difference to you--there would be no additional key-ins for you. But it looks like there are some problems and we may have to go to having you enter one more key-in, which would only be a single character.

QUESTION: I use an IBM PC, and at 1200 baud I get a string of characters. You have to put the A in to stop the output. Then from that point on, everything is all right. Do you know why I'm getting the string of characters?

CLAYPOOLE: TYMNET is looking for a data sample. It doesn't know what rate you're coming in at and it's waiting for that sample. So it's just putting out a bit pattern.

QUESTION: I have a PC and three different communications packages. Are they all compatible with your system?

CLAYPOOLE: They should be. If there's a problem, give us a call and we'll work with you to get it going. We have three PCs in the demonstration room now and they all have communications packages with them. If you want to see any of the software displayed, we can do that for you.

QUESTION: I have several questions. First of all, will you elaborate on the 3270 protocol?

CLAYPOOLE: The intent is for you to be able to use the IBM 3270 protocol--bi-sync protocol--and not have to use the UTS-type protocol or the Uniscope protocol that Sperry requires. You'll use some kind of emulator board in your terminal to make it look as though it's Sperry's protocol. We want to be able to let you use the IBM protocol so you won't have to purchase the other board. This is in the early stages right now so I can't say that it's really going to work.

QUESTION: Would that affect the dedicated sites eventually so that we could use Tempest-secure terminals that did not have to use the Sperry emulator board, and also allow diverse terminals?

CLAYPOOLE: Yes.

QUESTION: We've recently had the problem that when we get on a port, it rings, and there's no answer. I call up and it's fixed right away. But it happens almost every time. We dial up through TYMNET.

CLAYPOOLE: What port assignment are they getting?

QUESTIONER: 2 and 6.

CLAYPOOLE: We'll have to make a note of that and see if there is some uniqueness about those particular ports. If anybody else is having that type of problem, please let us know. It should sync up with any port.

QUESTION: We have been getting spurious characters on our terminals.

CLAYPOOLE: I was not aware that this was happening. Is there anything that's changed with your telephone system--new telephones, new telephone lines, anything like that?

QUESTIONER: Yes, new telephone lines.

CLAYPOOLE: That is a big factor. There's sometimes a lot of distortion in the lines. Don't fool around with this type of thing for hours on end. Call us and let us know.

QUESTION: We were primarily a dial-up user for a while and the system would not accept multiple-line inputs--just a line at a time. This precludes sending a text file. Are there any steps being taken to improve that?

CLAYPOOLE: No. We work in the asynchronous mode, which is a character at a time, or a line at a time as you see it. If you're a dedicated user then you can get a screen at a time.

QUESTION: We're a dedicated inputting site. When the computer is sending us a message such as "system is going down in 5 minutes," the message comes on the screen and wipes us out. Is there any way for that message to come at the top of the screen and not wipe us out? If the system is going to be up for a few minutes, we could save that screen.

CLAYPOOLE: I'll make a note of that and see what we can do.

QUESTION: Are you planning some enhancements, in terms of software, that we could use with the UTS-40, which is a more advanced terminal? It's an expensive and powerful piece of equipment and I'd like to use other things with it.

CLAYPOOLE: There are no plans for our system, at this point, to use it other than as a dumb terminal. The only thing that I could suggest is that you might have other uses within your organization.

QUESTIONER: It's a little difficult when you've got crypto gear running into it. It's an expensive piece of equipment sitting in a secure area and we'd like to do other things with it. We'd like to do Gateway-type things through other kinds of classified sites; we'd like to do post-processing; we'd like to have software so that we can manipulate things locally. I can use it for Gateway, except you're the only site I can get that's classified and I'd like to have you multiplex through with NASA and other sites.

CLAYPOOLE: That's out of my ballpark. We'll take it all into consideration.

I'll turn the session over to Mike Sullivan now, who has been Ted Zinna's temporary replacement.

MICHAEL SULLIVAN
Directorate of Telecommunications and ADP Systems

We do have a couple of new people in Technical Control now--Bob Falkner and Andy Lamb--and Diane Kessler is still with us. We also have a new communications specialist, Mr. Clark. The announcement for the chief's position is just about ready to close so they should have some candidates for this job very soon. We also have an electronic technician position that has been open now for about 1-1/2 to 2 years. If you know anybody who wants such a job, let us know.

Personnel working in the Technical Control Facility right now haven't been with DTIC very long--only about 3 or 4 months. It takes time to get used to people calling and giving you 10 or 15 problems that are occurring and wanting

you to solve them. They're learning as they go along so please be patient. If you have any serious problems with the way they answer your questions, or if we're not helping you, call Gary or myself. I know a lot of people get frustrated when they call in. We're not trying to make excuses; we're here to try to help you, and what helps you helps us.

We're in the process of upgrading to a KG-84 installation at DTIC. We have approximately 90 pieces of this cryptographic equipment on hand. At the moment we are initiating procedures to acquire a contract to install the new cryptographic equipment, and at the same time we're planning to upgrade the Technical Control Facility overall. So, hopefully, all the wiring problems that we always give excuses for will be cleared up. Halifax Corporation had the contract with us for upgrading TYMNET. To help you with this process, we're making up a list of where you can acquire the KG-84s, the prices and people you can contact.

DTIC will be furnishing KG-84s for their own terminals. It's your responsibility to get your own. We have none to lend. The cost is around \$11,000 including installation.

QUESTION: My site is already set up for a KG-84 installation. They've already ordered equipment that will be coming in next year. How do we get on your schedule? We're already a dedicated, classified site. We'll just be changing over from KG-13 to KG-84.

SULLIVAN: The problem we have right now is that our installation hasn't even begun; the contract is being processed now. The KG-84s that we do have on hand are for replacement programs only. If you have a KG-13 now, you will be scheduled under the replacement program. We hope the first set of 40 KG-84s will be installed by the end of January, but things are running a little behind schedule.

QUESTION: Are you going to run parallel programs for the KG-13s and KG-84s?

SULLIVAN: Until all are converted, we'll have two separate Technical Control Facilities. We're talking about making a totally new Technical Control Facility. That means we'll get new patch and test facility equipment, we'll get new Uniscopes to test the circuits, plus they'll be installing 96 KGs for us.

QUESTION: We seem to have a lack of coordination. Our base is saying they're going to go with the KG-84s and get rid of the KG-13s on the base, and you guys have your own installation schedule, and they're not in sync.

SULLIVAN: We have had some difficulties. We were told we had 40 KG-84s, so we went to the Air Force and the Air Force said they would start installing in 1987. We went back to the Air Force and they told us we could have a private contractor do it. So now we have to write a contract to get them installed. Then we have to go to a private vendor and buy new patch and test facility equipment to meet the standards that we need for new equipment. All of this is time consuming. We can't change everything overnight. We're lacking a lot of expertise in our electronics department as it is. Until we get fully staffed, you're going to have to be patient with us.

NEW USER ORIENTATION - Marcia Hanna/Amy Hurd/Annabel Kramer/Timothy McCleerey/Jerry Milstead/Regina Atkins/Brian McCabe - DTIC

INTRODUCTION
MARCIA HANNA
Office of User Services

Hello, I'm Marcia Hanna, of the Office of User Services. Welcome to the New Users Session. This session was designed to orient new users to the range of DTIC services.

There will be a question and answer period at the end of the session. We are asking you to wait until then to ask questions. This is because we have six speakers and feel that it is important to cover all the material.

All of your speakers are "old hands" at DTIC and have considerable expertise. Each speaker will introduce the person following him or her.

Your first speaker is Ms. Amy Hurd, a Documentation Specialist in the Reference Section.

REFERENCE SERVICES
AMY HURD
Directorate of Document Services

Good afternoon. My name is Amy Hurd and I work in the Reference Section. I know I've probably talked to quite a few of you at different times when you've called and I just want to say it's really nice to see you.

Today I am going to cover six topics, all having to do with the reference services which DTIC provides. These topics are: identification of technical reports, prices of technical reports, how to order reports, notification of orders which were rejected, problems with document services, and the relationship between the National Technical Information Service (NTIS) deposit account statement and the DTIC shipping statement.

First, how does one identify a report in DTIC's collection? You need the DTIC Accessioned Document (AD) number to order documents. There are several ways you can find the AD number. Users can identify the reports themselves using several publications which DTIC puts out, but I'm not going to get into those today. I'm only going to get into the areas where the Reference Section can help you identify a report. One way is to use the DTIC Form 1 (a small manila punched-card form). You fill in the back of the Form 1--fill in as much information as possible. If you need any of these forms, you can call the Registration Section at (202) 274-6871, or Autovon 284-6871. If you send in the Form 1 but don't know the AD number, we try to identify the report. The Forms 1 for those reports that we don't identify will go to our Acquisition Section. If there's enough information on the Form 1 to acquire the report for DTIC, we will try to get a copy and order it for you when the report arrives at DTIC. The Forms 1 which do not provide enough information either to identify the desired report in our collection or acquire it, will be returned to you for additional information.

The second way to identify a report is to call us. We will need the specific title, the report's contract number, the date of the report, report number, preparing source of the report, and personal authors to identify a report. If we don't have the report in our collection, we'll do our best to steer you to the correct source for the information. We can only take up to six items per phone call. If you have a long list of items to identify, you can mail the list to us to the attention of DTIC-FDRA. Please make sure you cite your user code, your deposit account number, and any applicable registered contract numbers. We can then go ahead and put your order through for you.

Another way to identify a report--if it's after 4:15 pm--is to leave a message on our answering machine. That phone number is (202) 274-6811. For those of you who can call Autovon, it would be 284-6811.

The second topic that I want to cover is the price of DTIC technical reports. In January 1984, our prices for documents went up. The price of a report depends, first of all, on whether you're ordering a microfiche copy or a paper copy. Microfiche is a flat 95¢ per AD-numbered document. The paper copy price depends on how many pages are in the report. If it has 100 pages or less, it's \$5.00; over 100 pages the price is an additional 7¢ for each additional page. For example, a 101-page report would be \$5.07, and a 102-page report would be \$5.14.

The page counts for technical reports are listed in the Technical Abstract Bulletin (TAB) or in the NTIS Government Reports Announcement and Index (GRA&I) for unclassified/unlimited reports; they are displayed on DROLS in field 12; printed on the yellow picking tickets that come with each document you order; or you can also call the Reference Section. If you call we will give you prices for as many as we can, but we ask you to be reasonable. We don't really have a set amount that we'll take, but if it gets really busy we might have to call you back on some of them.

Now that you have the AD number and the price of a report, how do you order it? That's my third topic. The first way to order a report is to use the DTIC Form 1. You fill in the front of the form. It asks for the AD number, your NTIS deposit account number, contract number if it is classified, the type copy you need, and the amount. Any routing information you want would go in block 7. You mail the Form 1 in to us and we will order the report for you.

Another way that you can mail in an order for a document is on the DTIC Form 55. Annabel Kramer is the next speaker and she'll discuss the Form 55 process.

Again, if you need either of these forms, give the Registration Section a call and they'll send them to you free.

If you have a very long list of reports and you don't want to fill out a Form 1 for each report, you can list your AD numbers in a letter, provided the reports are not limited in distribution. Mail the letter to us and we'll place your order. Please make sure that you cite your user code, deposit account number, all the AD numbers, any applicable contracts for classified items, and make sure you tell us if you want paper copy or microfiche.

At this point, I'd like to add that you must check any classified reports you order to ensure that you have a need-to-know for the information that you're requesting. To do this, you simply look at the fields and groups on the document. They are also displayable on DROLS in field 2 and in TAB. Compare the fields and groups on the report with the fields and groups you registered for on your DD Form 1540 in Part 4. If the fields and groups match--all you need to do is match up one--you should be able to order the report. You also need to check in blocks 10 and 10A on your DD Form 1540 to make sure the classification matches, as well.

You may also call the Reference Section to order reports. We will take up to 24 AD numbers per phone call if we're not too busy. I stress that because there are times when we are very busy and may have to ask you to call back later. Again, please have all the information ready when you call. You can also call our answering machine and leave the AD numbers.

The fourth topic for discussion is notification of rejected orders. When a user places an order with DTIC, a computer check of the order is done to see if the following four criteria are met: (a) does the user have a certified and applicable need-to-know; (b) is the user's registration current or has it expired; (c) is the document available--has it been cancelled or been put on hold (it could have even been withdrawn from our collection); and (d) did the user cite the NTIS deposit account number, if applicable, and was it the correct number.

If the computer check comes out clean, the order goes through. If any of the four criteria I mentioned are not met, a reject notice will be generated by the computer on a DTIC Form 15. That Form 15 will come back to our complaint processor and a check will be made to see if DTIC made an error. If we didn't, the reject notice will be mailed to you and it will explain why the order was rejected. In the upper left-hand corner, it will have the AD number and your user code, the date, and whether you ordered hard copy or microfiche. "Request not filled for the following reasons" will be printed in the middle, and a computer-coded number will be listed. You will not be billed for any orders that are rejected. If you reorder the report correctly, you will only be billed for it once.

This leads into the fifth topic--problems with Document Services. A few errors that DTIC could make include sending you a poorly-reproduced report, making an error on your bill, or sending you the wrong report. There are others, but I won't get into all of them right now. If DTIC has made an error for any reason concerning document orders, please call or write to our complaint processor on (202) 274-7633 or Autovon 284-7633. If you write, it should be to the attention of DTIC-FDRA.

The sixth and final topic to be covered is the NTIS deposit account statement and its relationship to the DTIC shipping statement. DTIC has an agreement with NTIS to handle our billing for us. Since you're dealing with two separate agencies, it stands to reason that you're going to be getting paperwork from both. Since NTIS handles money for DTIC, you'll get your monthly deposit

account statement from NTIS. At the end of the NTIS statement, you'll see a cumulative charge for DTIC reports. NTIS does not itemize the DTIC documents that you've ordered. Therefore, DTIC will send you a companion to your NTIS statement--a DTIC document shipping statement. The DTIC statement will give you an itemized list of each AD number that you've ordered with the specific price for each report and the total. The total figure on your DTIC document shipping statement should match up with the total figure on your deposit account statement. I want to add for those of you who are getting documents through ADD (the Automatic Document Distribution program), the total for the ADD documents is buried in the middle of the NTIS deposit account statement. You will get a separate DTIC document shipping statement for ADD reports.

This concludes my part of this presentation. I want to thank all of you and hope you'll be calling us soon with some challenging reference questions. Our next speaker is going to be Annabel Kramer, who works in the Registration Section.

**REGISTRATION
ANNABEL KRAMER
Directorate of Document Services**

In order to receive most of the services and products provided by DTIC, you must be registered. Any government organization or any educational or commercial activity working on a government contract can register. Also, registration must be certified by a higher approving official in a government organization or by a contracting officer/monitor for a particular contract for non-government organizations.

To register for DTIC services, you must fill in a DD Form 1540--Registration for Scientific and Technical Information Services. This form is very important, and is the record from which we at DTIC obtain all the information about you. It is imperative to keep it accurate and up-to-date. Contractors who have a need for classified information must file a DD Form 1541, Facility Clearance Register, with a regional Defense Investigative Service Office. For further information on this see DoD 5220.22M, Industrial Security Manual for Safeguarding Classified Information.

If you are not in the library or the office that is registered, I urge you to familiarize yourself with that office and, particularly, with the DD Form 1540. Make sure when you order products, that the correct information is provided--if you need classified material, you must cite the correct contract number (this only applies to contractors). You must have a need-to-know for the particular subject fields of interest (also called fields and groups) that are indicated on the form. A field and group of the document you order must match your registration--this is only for classified information. The same holds true for Restricted Data, CNWDI and NATO.

In addition, DoD has a special program to provide technical information to those who do not have current contracts. For further information on this potential contractor's program, contact the Office of User Services on (202) 274-6434 or Autovon 284-6434.

EXPORT-CONTROLLED INFORMATION, DD FORM 2345

A further requirement for some DTIC users (educational, industrial, and foreign owned) is the DD Form 2345. This form is required in order to have need-to-know access to export-controlled unclassified reports.

After completing this form, forwarding it to the Defense Logistics Services Center (DLSC), Battle Creek, Michigan, and receiving it back from them with a certification number in block 7 and signature in block 8, you then send a copy to DTIC.

If you have any questions regarding export-controlled information, a session will be held on Friday morning by Ms. Patricia Gaynor and Mr. Frank Sobieszczyk.

CONTRACT EXPIRATION

Sixty days prior to a contract's expiration, DTIC forwards a notice--DTIC Form 15--to the contractor notifying them to that effect. Ten days prior to a contract's expiration, no classified material can be ordered.

To extend your contract, you need to have your contracting officer/monitor send us a letter giving us the new expiration date. For government, DoD, and military users the only thing required for extension of services is a signature on the DTIC Form 15. This will extend service for 1 year.

DTIC FORM 55

What is a DTIC Form 55, Request for Limited Document? This is the form used by all our registered users when they wish to request limited reports from our technical collection.

What is a limited report? That is one which carries a limitation "L" and must first be approved for release by the responsible releasing authority of the requested report before the user can obtain the information. If you have an online terminal, the limitation citation will be displayed in field 22. You can also identify a limited document by the "L" which follows the accession number. An accession number is cited as AD, then an alpha may follow--generally B or C are the areas where limitations are most often found--plus six numbers (e.g., AD-B025 000L). Sometimes you will only see AD plus six numbers, no alpha (e.g., AD 937 241L).

Where do you get the bibliographic information to fill out the DTIC Form 55? If you receive TAB, that would be the first place to look for the information needed. TAB comes out every 2 weeks. It does not contain bibliographic information from previous TABs, it only contains the latest AD numbers with corresponding bibliographic information recently put into our system. The cover of TAB will give you the AD number range. If you do not have past TABs or the Annual Index, cannot locate the information you are seeking, or if you just have the AD numbers or the titles of the reports, you can get the information by calling our Reference Section. If you just have a list of AD

numbers, you can also call our Retrieval Analysis Branch--also known as our bibliographic section--on (202) 274-6867 or Autovon 284-6867 and they will run a bibliography which will contain all the information you need. The bibliographic information is an important part of the Form 55. The releasing agency cannot identify a request by AD number alone. I would like to emphasize that all information must be provided on the form before forwarding it to DTIC. We receive many requests for technical information every day. To expedite your request, the form must be complete.

What information is needed on the DTIC Form 55? In Section I, you need to fill in:

(1) AD Number - remember an "L" will follow the number.

(2) Classification(s).

(3) Distribution Statements - if any of the first three apply, all contractors must forward a DTIC Form 55:

(a) U.S. Government only - if this applies, government agencies requesting limited reports need not fill in this form.

(b) DoD only - if this applies, DoD agencies need not fill in this form.

(c) All Release Controlled or Further Dissemination - this applies to all users.

(d) Two other statements may also be cited:

1. U.S. Government Agencies and Their Contractors - no form needed. No "L" will follow the AD number. If requesting classified information, fields and groups must match the contract;

2. DoD and DoD Contractors - if you have a DoD contract, and it satisfies the fields and groups, no form is necessary. An "L" will follow the AD number.

(4) DTIC Control Number - DTIC use only.

(5) User Control Number - for your internal routing (this is optional).

(6) Date Requested.

(7) Sponsoring Military Activity Series Number - if applicable.

(8) Report Number - if applicable.

(9) Date Published.

- (10) Contract or Grant Number of Report - if applicable.
- (11) Report Title and Author(s).
- (12) Originating Activity.
- (13) Required For - this is your explanation, in detail, to the releasing agency as to why you are requesting the report. You need to put down a good, solid justification. Many requests have been returned disapproved because of a weak justification. Explain what you are doing so the releasing agency can decide if the information in the document is pertinent and your access justified.

Section II:

- (1) Organizational Name and Address.
- (2) Name.
- (3) User Code.
- (4) Registered Contract Number - check your DD Form 1540.
 - (a) Your contract must be actively registered with DTIC.
 - (b) It must be the contract you are working under to receive the requested information.
 - (c) The contract cited must be cleared for the classification of the information you are requesting and it must justify access to the fields/groups of the requested report.
- (5) Facility Clearance and Contract Clearance.
- (6) Government Sponsor and Address - make sure it corresponds with the contract number you cited.
- (7) Contract Monitor's Name and Phone Number - this is a part that DTIC users occasionally omit. If the releasing agency wishes to call your monitor for need-to-know and there is no name or phone number, the request may be returned disapproved.
- (8) Type Copy and Quantity - if left blank, DTIC will order it as one hard copy.
- (9) Method of Payment - you have two choices:
 - (a) If you have an NTIS Deposit Account, indicate that number.

(b) If you do not have a deposit account, check the box "Bill My Organization To The Attention Of" and put in your name. This area is also called "Ship and Bill." DTIC can only "Ship and Bill" limited requests. NTIS does our billing and has a \$.50 service charge per document to the user for each "Ship and Bill" request.

In Section III:

The Releasing Agency - releasing agencies are the organizations responsible for the release of the technical reports found in DTIC's collection. When looking at bibliographic information, this is where you will also find the distribution statement. The name of the releasing agency will follow the statement. What you need to put down here is the releasing agency's name and address only. The releasing agency will complete the rest.

DTIC FORM 55 ONLINE

Some of our users have the capability to order limited-distribution reports online. This is called our "ADP" version. All of our online users should have received a copy of the instructions for ordering this way. If not, call the Management Support Office, (202) 274-7709 or Autovon 284-7709. When ordering, please fill in all that is required according to the instructions.

A reminder--please type your government sponsor name and address and the releasing agency name and address in "Post Office Mailing Address Block Format." When all the information is completed, you will know if your order went through when you transmit and you get a response saying "DTIC Form 55 Completed."

If you are ordering more than one document and are using the same contract and justification, you can use the new @ADD55@ process. This complements the Form 55 processing by using the information from the previous Form 55 processed. The only fields that must be entered when executing the @ADD55@ are AD number and the releasing agency. You may enter any other normal Form 55 data desired. All remaining data will be the same as that which was entered for the previous request. This saves time from having to type in the same information over and over. When executed successfully, the system will respond with "Additional Form 55 Completed."

Your next speaker will be Timothy McCleerey, who is with the Retrieval Analysis Branch. Thank you.

BIBLIOGRAPHIC SERVICES TIMOTHY MCCLEEREY Directorate of Database Services

Good afternoon. My name is Timothy McCleerey, and I'm with the Retrieval Analysis Branch. You might have known this office previously as the Demand Products Branch. The directorate of which I'm a part has recently reorganized. We've also changed our letter code; we're now DTIC-H--actually DTIC-HAR.

Among the products and services which we provide are technical report bibliographies. The technical report file is automated and contains about 1.2 million titles. There are also about 300,000 other titles that are in a collection that is completely manual. You can order a bibliography from either portion of that collection--the automated portion or the manual collection. Generally, you wouldn't know which part of the collection your report would come from unless you knew the age of the report that you were seeking. The automated collection began in the early 1950s--between 1951 and 1953. If you have a subject that you're interested in receiving a bibliography on that goes back to 1945, then part of your search is going to be done in a manual file and the results would not look standardized. They'd be photocopies of various hand-typed materials that are four decades old.

The Work Unit Information System (WUIS) is the next computerized file. It goes back several decades. Its entries do not represent published reports. We're able to produce summaries for you by subject or by corporate source, as well as various other methods.

The Program Summary (PS) file is a subset of the WUIS file--at the present there are fewer than 1,200 records in the system. The PS information became available the first of October this year. The data is described in data elements that are similar to the WUIS.

The last file is the Independent Research and Development (IR&D) file. Because of its proprietary nature, this information is restricted to DoD users only.

There are different means for ordering information from these files. The new DTIC Form 64, Request for DTIC Database Products, is one of these. This is the new ordering form that combined the old DTIC Form 4, Information Request, and DTIC Form 64, RDT&E Information Systems Request. To receive a supply of these forms, call the Registration Section on (202) 274-6871 or Autovon 284-6871. If you have a supply of the old forms you can continue to use them because the information is essentially the same. If you use the old form and request program planning information, we will assume you are requesting the newer subset, the Program Summary. The old program planning file was discontinued at the end of September.

Now I'd like to talk about special products. The Current Awareness Bibliography, or CAB, is a tailored bibliography that's provided free. It comes out at the same time as our current announcement medium, the Technical Abstract Bulletin (TAB)--every 2 weeks or 26 times a year. CAB is a tailor-made slice of the new accessions that you've asked for in your particular subject areas. Essentially, CAB searches the TAB for you.

The CAB service is available to every user. In fact, it's available in multiples for activities that are fairly large and have several departments, directorates, or divisions. You can set up more than one CAB profile or search strategy with us. Each one will be tailor-made. If we run your profile and get no results, you will receive a "no finds" notice. They will be sent to your

user code, assuming you have one user code. By using the attention line one CAB may go to a particular department and have a person's name, mail stop, or room number on it, while another CAB with the same basic address but with a separate specialized mail stop code on it can also be received.

There is no charge for CAB service. Those of you who are customers of NTIS may be aware that they do have a similar service. They charge for the service and for the actual product that's mailed--you're charged both to set the service up and you're also charged for each product that they mail. I want to stress that, not to detract from the value of NTIS services, but because I want you to understand that about 40 percent of NTIS's collection are documents with AD numbers. If you're paying for an ongoing bibliography from NTIS and it has AD numbers in it, you can get the same information from DTIC under our CAB program at no cost. You also get it from us a little bit faster because it takes NTIS a while to get the information from DTIC and to get it loaded in their computer.

I'd like to talk about the ADD program next. ADD stands for Automatic Document Distribution. It's similar to the CAB service in some ways. You tell us what your needs are and we'll set up a computerized profile for you. The big difference is in what we send you. Instead of a paper bibliography, we will send you a package containing the actual text of each document on microfiche. If your bibliography results in citations that are classified, you would have to have the proper need-to-know and contracts that are on file with DTIC that allow you to receive documents at that security classification level. Still, it is possible to get those documents directly and automatically. If you're familiar with library terms, it's what amounts to a standing, or blanket, order plan. Let me stress that microfiche come only with a shipping list of AD numbers. We do not send you a printed bibliography with those.

Again, this comes out at the same time as the CAB service because they both are searching the same new information every 2 weeks. DTIC processes approximately 1,200 documents every 2 weeks. Your profile is passing over and looking at those 1,200 documents every 2 weeks both for CAB and ADD. Unlike CAB service, if we run your profile and get no results, you will not receive a notice.

I try to sell these two products together as a package. If you'd like to get a citation just to let your patrons know what information is available, you get the CAB service--the printed bibliography. If you want to be able to quickly show them what the document contains, you also ask for the ADD program, and then you have the microfiche document right in hand. They can be shared with your patrons so they can get an idea as to whether they need these documents in their research work. Again, I urge that you consider both of these excellent reference aids.

The ADD program does have a fee--not for setting up the profile, not for running your search every 2 weeks, but only when we actually match your subject against one of those 1,200 documents. When we send you the microfiche we charge you a very small amount--35¢ per title. It doesn't matter what the page count is; it doesn't matter whether it's one sheet of microfiche or ten. We still

only charge 35¢. And again, that's regardless of classification. So if you know how much it costs to send a registered package these days, that's a very great bargain. You're getting billed 35¢ and it's costing us several dollars to mail it to you.

About the billing--as with other DTIC products and services that have a fee, you need to have an NTIS deposit account in order to have your billing done for the ADD program. Each ADD program shipment is a separate line entry on your monthly statement from NTIS. DTIC does not give you a detailed monthly statement on the ADD program; but you do receive an AD number list with any ADD shipment.

The last thing I want to talk about is the Recurring Reports service. This service is concerned with the management information files--the WUIS, PS, and IR&D. There is no charge for this service. We run your profile according to your choice of timeframe--monthly, quarterly, semiannually, or annually. If we run it and get no results, we do not send you any kind of notice.

Remember, to receive any of these services, you can call, write to, or visit us. Most of these services have either no cost or very little cost. They are the major ways for you to tap DTIC's services, and I urge you to use them.

Jerry Milstead, who is the Deputy Director of the Directorate of Telecommunications and ADP Systems, is our next speaker.

DEFENSE RDT&E ONLINE SYSTEM (DROLS)
JERRY MILSTEAD
Directorate of Telecommunications and ADP Systems

Thank you. I'm going to give you a quick overview of the Defense RDT&E Online System, more commonly known as DROLS. DROLS is a system that gives you real-time access to the DTIC databanks--allows you direct access to the technical and scientific information contained therein. We also provide an input capability through DROLS for those users who are interested in direct input of their documents. We currently have 850 DROLS users--108 are classified dedicated, 35 unclassified dedicated, and the remainder are dial-up. All DTIC databases are available online.

The Independent Research and Development (IR&D) database contains information on ongoing contractor independent research that is not being done as a result of a contract or a grant. The information is extremely proprietary and, for that reason, is only available to classified DoD sites.

The Work Unit Information System (WUIS) contains information on ongoing research throughout DoD. It contains approximately 180,000 records, 7 percent of which are classified. This databank is available to all online users.

Just recently we added to the WUIS a subset of elements that pertain to planned research in DoD. There are approximately 1,200 records that were extracted from the RD-5 planning documents which describe planned research throughout DoD. This Program Summary (PS) database is available to all online users.

The largest databank available is the Technical Report (TR) databank. It contains approximately 1-1/4 million bibliographic entries for TRs that DTIC has accessed since 1952. This databank is about 12 percent classified.

I want to briefly describe some of the benefits of being in the DROLS system.

- o You can input or retrieve directly from the databanks in a fraction of the time it would normally take if you had to write or call in for a search.

- o It allows scientists and engineers to interact directly with the databank, rather than going through an intermediary.

- o It allows users to order full-text documents online from the TR databank.

- o It can save you money by showing you research being done in other areas, in order to avoid duplication.

- o It can provide you products in a fraction of the time and cost it would normally take to obtain these.

There are two basic types of access available in DROLS--dedicated and dial-up. Dedicated access provides you data from all the databanks, both classified and unclassified. To have classified access, though, you must rent a dedicated communication line, provide the communications equipment at the two ends, and you must use a Sperry synchronous terminal or a Sperry-equivalent synchronous terminal. This is a very costly means of access. So you either have to use the system a lot or need classified data for this type of access. As I say, it is very expensive. You can have unclassified dedicated access, but again, it's quite expensive. You have to rent the communications line and you have to pay for the modems at each end.

By far the cheapest method of access is dial-up. With dial-up access, you can use any asynchronous terminal that operates in the ASCII protocol. Basically, what that means is just about any terminal made today, from teletype up to almost any kind of personal computer. This is the cheapest form of access for you because almost every organization has a terminal of some kind or other these days; plus, the communications costs are essentially zero because DTIC is part of the TYMNET network which provides access to our computers from almost every major city in the country. DTIC funds for the backbone cost of TYMNET. However, there is a charge for connect time. At this time, the charge for dial-up is \$20.00 a connect hour, which is quite competitive--actually very cheap--and that's only actual connect time. There's no charge for off-line prints, etc. Just the connect time.

I'd like to describe quickly some of the services available through DROLS.

- o You can obtain bibliographies, either online or batch.

- o You can order full-text documents from the TR databank.
- o You can generate Form 55 requests online.
- o We have a technical control facility to assist you with any communication-type problems you have and to assist you in obtaining the type of equipment you need to access the system.
- o We have an Online Support Office which can answer any questions you have about DROLS.
- o We provide you with a number of reference tools, such as the DTIC Retrieval and Indexing Terminology (DRIT).
- o We provide you with document source hierarchies and that type of reference tool.
- o We provide you with monthly logs which show how much you've used the system, what databanks you've searched, how many documents you've ordered.
- o We send out periodic newsletters which give you updates on the system, where we're going, what new changes have been made.
- o Training is provided free of charge at DTIC. The training course for dial-up users is 3 days long; for dedicated users, it's 5 days.
- o We hold six regional user meetings and one annual user conference a year.
- o We provide training before and after these meetings, and on occasion we can send people out to your sites to train. If you can gather enough people to make it worthwhile, we will see if we can send a trainer to your site. We expect you to pay the TDY costs for this trainer, but it's more cost effective for us to send someone out to you than for all of you to come to Washington.

How do you get access to DROLS? First, you have to be a registered DTIC user. You have to have an NTIS deposit account. If you're a contractor, even if you want unclassified access, you have to have a Confidential facility clearance and your terminal operators must be cleared to Confidential. This is a requirement contained in the Industrial Security Manual. If you want more information or you want access to DROLS, write to the DROLS Operational Manager, DTIC-Z, Building 5, Cameron Station, Alexandria, VA 22304-6145.

We have a demonstration room set up during the conference with three PCs and a terminal operating. The people manning this room can demonstrate the system for you.

Our next speaker is Regina Atkins, and she's going to address our Acquisitions Program.

**ACQUISITIONS PROGRAM
REGINA ATKINS
Directorate of Document Services**

Good afternoon. I will briefly acquaint you with how DTIC identifies and acquires reports to be added to our database. I will also explain why you, the users, are so important in this acquisitions process.

Have you ever searched DROLS for a document and found that it was not listed? If you were depending on DTIC to provide you with a copy of the technical report, what should you do? First, you would contact our Reference Section, either in writing or by telephone, to request the document you need. You should provide all of the information that you have about the document, such as the title, author, contract and report numbers, performing organization, and any other information that will help identify the document. Once the Reference Section verifies that the document is not in the collection or in the process of being added to the collection, your request will be forwarded to the Acquisitions Section. We in Acquisitions will then write to the contract monitor and request the document for addition to the DTIC collection.

There are other ways that documents are added to the DTIC collection. All defense agencies and their contractors are required by DoD Directive 3200.12 to forward technical reports and documents resulting from research and development funding to DTIC for inclusion in its Technical Report database. These reports are then available for use by registered users of DTIC.

The Services each have regulations which implement the DoD Directive. In addition, we work very hard to increase and reinforce DoD community awareness of DTIC through participation in meetings, conferences, and professional organizations. We also give speeches and briefings to ensure that DoD personnel and contractors understand our mission and the importance of providing us with the information you need.

DTIC depends on you. You are the extension of DTIC. We rely on you to spread the word and to inform the people you work with of our mission and our purpose. If you work in an organization that generates technical reports or documents which are the result of research and development, they should be sent to DTIC. Please ensure that a copy is sent to us. Explain to your colleagues the importance of having your technical reports cited in the DTIC database. Emphasize the usefulness of DTIC to your mission. You can also help us to maintain a complete database by requesting that we acquire a document whenever you find that it is not cited as being in DTIC. Dr. Edith Martin stated, "Without a complete database, no planner or funder of work can be sure that he or she is not proposing or funding work that is not already underway elsewhere. The potential for wasted time and lost dollars in vital defense projects is obvious." Remember, an information center is only as good as the documents put into it.

Thank you. Brian McCabe will now discuss our Information Analysis Centers.

INFORMATION ANALYSIS CENTERS
BRIAN MCCABE
Information Analysis Center Program Office

I'm Brian McCabe. I work in the Information Analysis Center Program Office at DTIC. You heard my boss, Mr. Pendergast, earlier this morning. He gave you a good overview of what's going on right now. I'd like to give you a little more "broadbrush" view. You've heard the other speakers discuss the various services of DTIC--the services that we've created and maintain for you, the DTIC user. Now, I'd like to discuss a DoD program supported by DTIC that's available for you to use.

I like to remember DTIC this way--at DTIC, Technical Information is our middle name. That's one very brief way to sum up what we do. The DoD Information Analysis Centers are another reference access opportunity. They are smaller, highly-specialized counterparts performing functions similar to DTIC, functions with an important difference. They create bibliographies, they have current awareness services, they produce reports, they make referrals, they generate and maintain handbooks. But analysis is an important difference--in fact, it's the IAC middle name. DTIC is a supreme generalist in matters of R&D technical information for DoD. IACs are specialists in selected DoD subject interest areas. IACs are designated centers of technical excellence. They employ recognized subject experts. Their technical knowledge and judgement is on call to you to provide both qualitative and quantitative information evaluation services.

Another significant difference between the products and services at DTIC and those of the IACs is in what you can get. The IACs produce and sell information products. They can provide references. They cannot make secondary distribution. That's DTIC's job. They tackle simple questions, tough ones, and anything in-between. They provide state-of-the-art answers. All you have to do is ask the questions.

To help you know who to ask, we've issued a new directory of DoD IACs--it's the little black book. Read the program summary for the products, the services, and the center subject coverage. Decide which centers can be of help to you or to the people that you work for. Get in touch with the IAC of your choice. I will personally guarantee that all of these IAC people are friendly, helpful, and very nice to talk to on the phone. And they'll even answer letters!

We keep them on call to serve you. Our investment pays off when you use them. DTIC staffs an IAC Program Office; we maintain current centers and guide establishment of new centers with the DoD program. You've heard the program manager describe the new IACs in development. Considerable DTIC resources, over 30 percent of our budget, go toward providing for some of the IAC core funding. Also, there are additional funding efforts under the contracts from other components of DoD, and funding by several other agencies and services for IACs that are not under the DTIC wing. They are all described in the IAC Directory which lists 19 centers. DTIC administers 11 of the contractor-operated centers.

These services have a cost. Our centers each have their own service charge plan, which are best described by your asking each center directly for their user literature.

I'll mention one detail. It's something that has come up among several of our users and you'll run into it also. IACs currently have about 2,500 of their products in the DTIC collection. New IAC technical documents entering the DTIC collection after 17 Jan 85, and any of the older documents whose availability statement has changed, will be available from DTIC in microfiche format only at the DTIC microfiche price. Paper copy will still continue to be available from the IACs, and some selective products from the National Technical Information Service (NTIS). Remember to check the availability field, field 22, for any report that's related to IACs to see whether or not DTIC can provide it or whether you have to go to the IAC directly.

Six of the DoD IACs in our program, including PLASTEC, an Army activity, are currently sharing reference citations in the DTIC online system. They've got their own ranges of AD numbers. Others will start participating in the future. Currently, we have about 162,000 of these IAC-supplied citations that are composed of 116,000 active, exclusive IAC citations. That means those are records at the IAC; they are not at DTIC. And about 45,000 modified DTIC records. They may be under the IAC AD number; they're also in the system under a DTIC-applied AD number. You can order them under the DTIC number (AD-A, -B, or -C) but if it has an AD-D number, that quite possibly is one of the IAC references. I caution you about that. Check the availability statement. DTIC can't supply these, and remember, neither can the IAC because they're not in secondary distribution. The references are in there because we pay those centers to collect the information to carry out their mission for DoD, and as a secondary benefit, the citations are there to provide you with additional referral reference sources.

The DoD components sponsor or operate DoD IACs. The Office of the Under Secretary of Defense for Research and Engineering sanctions their establishment. DTIC, through DLA, is tasked to develop and continue the centers. It's the user who really makes the program work, and I'd like to commend the centers to you. You are the new users who will have the opportunity to use those centers.

**AD NUMBER RANGES FOR
DoD IAC CITATION RECORDS IN DROLS**

<u>MCIC</u>	- AD- 175000 THROUGH AD- 183121 AD-D100000 THROUGH AD-D199999
<u>MCIAC</u>	- AD-D200000 THROUGH AD-D299999
<u>NTIAC</u>	- AD- 190000 THROUGH AD- 196582 AD-D300000 THROUGH AD-D399999
<u>PLASTEC</u>	- AD-D400000 THROUGH AD-D499999

<u>GACIAC</u>	- AD-D500000 THROUGH AD-D599999
<u>CPIA</u>	- AD-D600000 THROUGH AD-D699999
<u>SURVIAC</u>	- AD-D700000 THROUGH AD-D749999
<u>MTIAC</u>	- AD-D800000 THROUGH AD-D849999
<u>SMIAC</u>	- AD-E600000 THROUGH AD-E699999
<u>TO BE ESTABLISHED</u>	
<u>CW/CBDIAC</u>	- AD-D750000 THROUGH AD-D799999
<u>HTMIAC</u>	- AD-D850000 THROUGH AD-D899999
<u>CIAC</u>	- AD-D900000 THROUGH AD-D949999

Document citations within these ranges refer to documents unique to the acquiring IAC at the time of initial citation input. IAC citation records in DROLS represent documents acquired by the IAC for reference purposes. IACs do not make secondary distribution for any documents other than their own products. IAC-generated citation records are available so that DTIC users can be aware of the existence of source documents covering the particular areas of the listed IAC.

Documents accessioned under these IAC-assigned AD number ranges are not available from DTIC. DTIC-accessioned technical reports, which the IACs use in their specific subject reference collections, are available from DTIC under the DTIC-assigned AD number.

DROLS INPUT <u>IAC</u>	FIELD 44 <u>SUBJECT TERM PREFIX</u>	FIELD 44 <u>ROLE CODE</u>	FIELD 42 IAC <u>DOCUMENT NUMBER PREFIX</u>
MCIC	M--	48	MCIC..
NTIAC	N--	47	NT..
PLASTEC	P--	46	PL..
GACIAC	G--	44	GC..
MMCIAIC	C--	43	MM..
CPIA	A--	42	CP..
MTIAC	B--	41	MT..
SURVIAC	S--	40	SR..

HANNA: Thank you, Brian. Are there any questions?

QUESTION: Who has the responsibility to submit technical reports to DTIC?
The monitor?

ATKINS: Yes, however, it works two ways. If you're knowledgeable, you can work with your contract monitor. No one person can be all-knowing on a particular subject, so you should work together. The important thing is that we do need and want the information put into the database. We want it to be made available to the users of DTIC, to the DoD community. So it isn't really a case so much of whose responsibility it is, rather that the information is supposed to be in the database.

QUESTION: Can we assist in that case? If the contractor provides us with the contract number, and if you remember the exact address of a contracting activity, can DTIC, with that information, send an official letter seeking the reports?

ATKINS: Yes, we can do that, too.

HANNA: If there are no further questions, then the session is concluded. Thank you for joining us.

DEFENSE RDT&E ONLINE SYSTEM (DROLS) WORKSHOPS. James DePersis/Laurie Lubsen, DTIC-B

The major points covered at the training sessions for both dedicated and dial-up terminals are outlined below. Both instructors believe the following outline captures the essence of the training sessions more clearly and succinctly than the transcript.

1. Training sessions offered at DTIC every month (telephone 202-274-4355/4356 or Autovon 284-4355/4356):

- a. Dedicated - 5 days
- b. Dial-up - 3 days

2. System enhancements:

a. Search Technical Reports

- (1) STR - searches all accessions in database.
- (2) (5) - limits search to last 5 years of accessions.
- (3) (10) - limits search to last 10 years of accessions.
- (4) SNA - limits search to last 2 weeks (TAB) of accessions.

(5) RSQ - will display the ranges of accession numbers represented by the limits.

b. Current File

SCF - searches those accessions being processed for the next update.

c. Display Rejections

(1) Accessions not available for display:

- (a) Field/Group Rejection
- (b) Classification Rejection
- (c) Distribution Limitation Rejection
- (d) User Code Expiration
- (e) Unannounceable Category
- (f) Intelligence Category
- (g) Database Error
- (h) Site Ineligible for Data
- (i) Referral Category

(2) Cancelled - no longer available from DTIC.

(3) Replaced by AD _____.

d. Free Text Qualification - all databases

- (1) Single word or phrase up to 60 characters.
- (2) Characters include alpha, numeric, and hyphens.
- (3) All other punctuation, eliminate and pack.
- (4) Allow for variation.
- (5) No stop word list.
- (6) Recall commands (RSQ and RQQ) can be used.

e. Ordering Commands - OSR, OQR, OUF

(1) Dedicated Sites - the TAB key can now be used to position the cursor when filling out the stubs. The tabbing feature is only available for dedicated terminals.

(2) Technical Reports:

(a) Report classification stub changed to Bibliography Classification.

(b) Minimum requirement for an unclassified bibliography is:

BIBLIOGRAPHY CLASS: 1

(c) Hard copy document orders of two or more documents will contain the cost amount. Ordering of one document will not include the cost.

(d) Hard copy ordering of source hierarchy volumes set at \$10.04 each.

f. Ordering Limited Documents - FORM55

(1) Required stubs for all sites:

ADN: CPY: RQF: REL:
UCO: QTY: REQ: DAN: or SBA:

(2) Additional mandatory stubs for contractors/grantees:

GOV: CMO: FCL: CCL:
CNO: (Completed Contract Number)

(3) Optional stubs for all sites:

UCN: RTL:

(4) Note:

(a) REQ: include the requester's name and telephone number (information for the releasing agency).

UCN: include the recipient's name (the routing information).

Both stubs can be the same or different.

(b) All users, dedicated and dial-up, must enter the stubs with the necessary information.

g. Ordering Additional Limited Documents - ADD55

(1) Required stubs:

ADN: REL:

(2) Any others as necessary. Some residue will result if new entry contains fewer characters than original.

h. Cancellation of Form 55 - cannot be cancelled online. Call Reference Section on 202-274-7633 or Autovon 284-7633.

3. Program Planning Database - Cancelled. Replaced by program summaries and residing in the work unit database.

4. Work Unit Database

a. Search Commands

(1) SWU - search work units only.

(2) SPS - search program summaries only.

(3) SWP - search both work units and program summaries.

b. Search Strategies

(1) SWU - will automatically add an "exclude" level, eliminating the program summaries from search.

(2) SPS - will automatically add a first level to limit the search to the program summaries.

(3) SWP - will accept strategy as entered.

(4) Subject searching and role code searching will be the same for each of the files.

(5) Digraphs for program summaries:

XA - Army
XF - Air Force
XN - Navy

(6) Distribution limitation for program summaries is DX--available to DoD and their contractors.

c. Statistics

(1) SWU - no change.

(2) SPS - will reflect search finds and breakdown by the Services for the work units only.

d. List commands - LSR, LQR, LUF

(1) SWU - list work units only.

(2) SPS - list program summaries only.

(3) SWP - list both work units and program summaries.

e. Display - DSR, DQR, DUF

(1) SWU - display not changed.

(2) SPS - display will carry heading:

////PROGRAM SUMMARY////

(3) SWP - display both with the heading as above for program summaries.

(4) New command:

DPS - display single item from program summaries.

f. Ordering - OSR, OQR, OUF

(1) Formats:

(a) SWU - 850 - consists of work unit information on Form 1498m.

(b) SPS - 850PS - consists of program summary information on the Form 1498m.

(c) SWP - 850WP - consists of work units in 850 format and program summaries in 850PS format.

(2) Classified sites - orders will consist of classified and unclassified resumes and summaries.

(3) Unclassified sites - orders will consist of unclassified resumes and summaries only.

(4) Remember: program summaries are available to DoD and their contractors only.

(5) Contractors must fill in the contract number stub--the last six alpha-numeric characters.

g. Ordering - OOS

(1) Formats are the same as above.

(2) Orders will include classified work units and program summaries if the facility is cleared to handle classified information.

(3) Contractors must enter their contract numbers--the last six alpha-numeric characters.

h. Qualification Statistics

(1) WU - will remain same.

(2) PS - will reflect qualified finds, with a breakdown by the Services; the funding will reflect CFY, CFY-1, and CFY-2 only.

(3) WP + PS - will reflect qualified finds on all items. The breakdown by Services reflects work units only; the funding will reflect both.

5. Program Summary Database

a. Resident in work unit database for 1 year only.

b. Reflects program element and project information from the three Services.

c. Available to DoD and their contractors only.

d. Only responsible organization reflected, only in-house effort, and only military application.

e. Narrative fields:

(1) Navy and Air Force:

Field 23 - Requirement/Description

Field 24 - Current Status (FY83/84)

Field 25 - Planned FY85 Program

Field 26 - Planned FY86-89 Program

(2) Army:

Field 23 - Description
Field 24 - FY84 and FY85 Program
Field 25 - Planned FY86 Program
Field 26 - Planned FY87-90 Program

f. Funding - reflects resource estimates for CFY, CFY-1, and CFY-2 only.

LIMITED DOCUMENTS. Sara Happel, NSWC White Oak/Harold Smith, Grumman/
Elaine Burress, DTIC/ Paul Ryan, DTIC

INTRODUCTION
PAUL RYAN
Office of Information Systems and Technology

Good morning. My name is Paul Ryan and I'm from the Office of Information Systems and Technology at DTIC. I'd like to welcome you to the panel discussion on the procedures and problems associated with the release of limited documents.

This morning, in two back-to-back sessions, we hope to be able to present to you a view of the procedures and how they work in the three organizational elements that handle the release of limited documents: the requesting organization, DTIC, and the releasing organization. The panel seated before you today represents those three organizations. Representing the requester is Harold Smith, who is the manager of Library and Information Services at Grumman Aerospace Corporation in Bethpage, NY. Harold has been a DROLS User Council member for 5 years. In the last several years as a council member, he has been responsible for monitoring the usefulness of the Form 55 online. So Harold has been involved in looking at the 55 process from the contractor point of view for a number of years.

Representing DTIC, and the middleman in this operation of releasing documents, is Elaine Burress. Elaine is chief of the Document Processing Division at DTIC, and will give us an idea of what DTIC's role is, some of the problems DTIC handles with the Forms 55, and exactly what DTIC does with them so you have an idea of what DTIC's procedures are.

To Elaine's left is Sara Happel, librarian from the Naval Surface Weapons Center at White Oak. Sara will give us an idea of what a typical releasing organization does to either approve or reject release.

I'm going to moderate this panel. One of the reasons Elaine asked me to moderate it is my background. I've been in all three positions. I am now at DTIC, where the process of approval goes on, although I'm not directly involved in that process. I have been both a requester and a releaser in my previous positions, so I have some idea of what happens on all sides of the fence.

Each of the panel members will give a 10-15 minute presentation explaining what they do, what some of the hang-ups are, what some of the problems they face are, and exactly how they approach them. At the end of that time, we will open the floor to a question-and-answer period. I'd like to remind you that this session, as all others, is being taped so that when you have questions, go to the microphone, state your name and your organization, and then your question.

Without further ado, I'll introduce Harold Smith, who will give us the requesting agency point of view.

HAROLD SMITH
Grumman Aerospace Corporation

Thank you, Paul. Good morning. I'd like to open up this discussion by determining, by raise of hands, the make-up of the audience. How many people represent contractor, or requesting, organizations? How many people in the audience represent the releasing agency arm of the government? (Seventy-five (75) percent, requesting organizations; 25 percent releasing agencies.)

I am going to start out by mentioning items that, in some cases, the contractor is fully aware of. However, I'm not sure that the releasing agency is also fully aware of them. Requesting agencies originate requests online or by mail. But actually, there's a more general step that occurs well before the need for a request for a limited distribution document, and this is the point of registering at DTIC to begin service. I'm not sure that the releasing agencies are completely or fully aware of the fact that any given contractor who may have one or more multiple contracts does, in fact, have to register each of these contracts with DTIC to be eligible to order material authorized under that contract.

This contract registration--I'm talking primarily right now from my experiences at Grumman, and I've been registering contracts on and off for maybe 20 years--is sometimes a somewhat complicated process in-house, depending on your own organization or company. We have to find out first that a contract has been awarded (looking at the DD 254 identifies whether DTIC services are eligible under that contract). Then the fields and groups that should be registered under the contract must be identified. Now, that isn't always done by the information side of the corporation or company. Some companies have their contracts people evaluate this; they have the program manager internal in the company evaluate it; combine this with the information organization within the company; and finally the registration form is sent out through the contracting officer for approval and registration. This is a very key and critical point as far as the contractors are concerned. The more contracts we have registered, the more contracts we can use legitimately to order and request limited distribution documents.

That process now accomplished, we have "X" number of contracts registered. An engineer, scientist, researcher, marketing analyst--whatever the title of the individual--now needs information in performance of this contract. We will use various sources for identifying information, primarily using the DROLS system and the various publications that we receive in our corporation. We now have identified a whole series of documents, many of which are limited distribution documents.

Once the desired document is identified, the first thing we have to determine is whether that document can be automatically released to the contractor or whether a Form 55 is required. If no Form 55 is required, all we have to do is ensure that we have a contract that is registered with DTIC that covers the fields and groups of the document. Then it's a standard order through the normal ordering scheme.

Everybody in my organization tends to throw up their hands when it comes to ordering a limited distribution document, even though we have had a system for ordering these documents in place for a number of years. This is because it takes so long. We tell the individual requesting the report that we don't have the document because we haven't ordered it before; we have to process this form and it has to go through certain channels--to DTIC, DTIC to the releasing agency, back to DTIC for generation of the report, and finally release of the report to the requester. (I will go into a couple of horror stories that we've experienced at the end of this, but right now I'd like to continue with the process itself.)

Many times when a requester is working on a contract, he may also be working on an RFP. An RFP turnaround time may be 30 days, 60 days, 90 days--depending on the organization and the RFP. Generally, we will advise them if they're working on an RFP not to count on receiving the document in time to use it in preparing their response to the RFP--use other resources. Unfortunately, this causes, in a sense, incomplete information. This is very critical from the contractor viewpoint. If we had already acquired that document under another contract, and still had it resident in our collection, they would be able to use that data.

Once we decide to order a limited document, the requester fills out an internal working form in our organization. This form asks for need-to-know, contract justification, and a variety of other things that are obviously items that are on the Form 55. We go over the information with them, and in some cases talk to the program manager because the engineer doesn't always know the full content of the contract. This assures us that we have a complete and thorough need-to-know statement. At that point, we submit the form.

At Grumman, we have been using the online Form 55 system. We find it has cut down a lot of mailing time. If some of you are not already using that system, I would recommend that you at least attempt it. I think you'll find it a very effective way of ordering limited distribution documents.

At this point, as will be discussed by the other panelists, DTIC processes the form. The form is then sent to the releasing agency, which in turn has to process the form and make a decision.

Now the engineer comes back to us perhaps 1 or 2 weeks later and asks, "Where's my document? I need this information because this is a critical point in the preparation of my report. I'm to the point where that information fits in." (Our turnaround time, the time between when we request a report until the time we get a document, seems to average somewhere between 2 and 3 months. It's also been much longer.) Now, the requester expects the report in a week to 10 days and he feels that we're making excuses when it does not arrive--I'm talking now entirely from the contractor viewpoint. The requester says, "Gee, you have an inefficient organization--don't you know how to order this stuff?" Patrons don't want to hear that government regulations require that this form be filled out, and needs a specific signature for approval, etc., etc. All they know is that they need the information and that the information center is not supplying it. Some people are understanding. Others walk out irate. I think we've all experienced this at one time or another.

Additional difficulties exist in the process. More releasing agencies--and this is at the local level now--are requiring that, even though DTIC has reviewed our registration and our contract covers the fields and groups of the document, the signature of our contracting officer be on the Form 55 before they will even consider looking at the releasability of a document. This has created havoc for us. If we must get the signature of the contracting officer before submitting the Form 55, we cannot order online because DTIC automatically sends the form to the releasing agency and not to us. So now, when we know that a releasing agency is requiring the signature of the contracting officer, we process a typed Form 55. We forward it to the contracting officer, provide our justification, and ask that it be signed off on and forwarded to DTIC. DTIC then puts it into their system and sends it on to the releasing agency so they will begin to consider the releasability of the document. The signature of the contracting officer doesn't guarantee that the releasing agency is going to send the material or authorize the release of the material. It's just another step--and a very difficult step--that has been written in at the local level. I'm sure other contractors have experienced the same thing. It has caused havoc because we now have built in at least another month's delay in the release of the document--if, in fact, the document is ever released.

Now I would like to address the need-to-know statement. I would like to remind contractors that these things are examined by technical personnel at the releasing agencies who evaluate whether what we're asking for is contained in the document, and whether we have a legitimate need-to-know in performance of the contract that we're citing. At Grumman we work with the requester--and most of the time someone in the program office who has a better understanding of the full content of the contract--to write a need-to-know statement. The information people in our technical information center who have been working with limited distribution documents for a long time, and have an understanding as to acceptable justifications, will sometimes reject internally a need-to-know because from their experience they know that it's just too generic or it's too broad.

On the other side of the coin, we have had to evaluate the content of a report by the descriptors, the identifiers, the title, and the fields and groups, because that's the only information we have to give us the slightest idea about the content of the report. Sometimes, based on that information, we have to assume that certain types of data are in the report, particularly if it falls within a broad field and group. We do this only to find that we're refused information from the releasing agency because they say that that type of information is not in the report. Now we have an immediate delay. The worst thing about this--it's not just so much the delay and the refusal--is that the requester feels that the information that he's asked for is valuable to his needs. Whether he's working on a contract, IR&D, RFP, whatever the case may be, that document is needed. Now we have to go back to him, in some cases this may be 2 months later, knowing that it's now been refused, and let him know that the information he's been waiting for to fill in the gap in his report is not available because it's not in the document he asked for. Of course we bear the brunt because we're the middle person. I'm not trying to cry about the situation, but the information person or resource in the company sometimes is the only person in the company that they can complain to--and rant and yell and scream!

I would like to go into a couple of examples of things that have happened to us over the past few years, to convey to the releasing agencies some of the difficulties that the contractors are running into.

Two years ago we ordered a document that had a limited distribution. We used a contract that was due to expire 6 months from the time that we ordered the report. We had a legitimate need-to-know and the document was needed in performance of that contract. By the time the releasing agency did authorize the release of the report, DTIC could no longer send it to us because the contract had terminated. So there was a 6-month period when we legitimately had a need and enough time to get the document to use in preparing a report for the contract, but the process took so long that it was no longer releasable to us. Of course, by that time we didn't need it anyway.

Another example that I've run into, I don't know how we can solve. A couple of months ago, we requested a limited distribution document. We got a reply back from the releasing agency indicating in a vague reply that we were ineligible for the report. I just didn't like the answer and decided to call the releasing agency and find out what the problem was. I was told by the releasing agency that that particular report required special security restrictions applied to it and a special need-to-know. So I said, fine, if I establish myself and my corporation under this other contract we have, which also has a special need-to-know, can I resubmit the request to receive the data? The answer was no, because they would not release it to any library. Yet the document was listed in DTIC. My comment back was that we have engineers who are working on this contract and have this special need-to-know, but DTIC will not send it directly to their attention because they have to send it to the address that is registered with DTIC. The releasing agency refused to have it associated with any sort of a library collection. The attitude of the releasing agency was that a library doesn't know how to control information. They feel we'll release it to anybody because the nature of a library is to disseminate information, not control the release of it. How do we solve this problem? The releasing agency did not have an answer; I certainly did not have an answer. I'm hoping this is a very isolated case, and that I won't see more of this type of information being put into DTIC. What's the sense of announcing something in DTIC if it won't be sent to a library because of a special need-to-know?

I'd like to recommend that DTIC examine the official documentation that creates the limited distribution system. Look at it to see if controls--not controls so much as conformity--could be made part of this system so that everybody would be doing the same thing in the same way. The difficulty that arises is local control--one agency releases, one agency doesn't; one agency does this, one agency doesn't. From the standpoint of the requester, if we haven't dealt with an agency before we don't know if they require a signature prior to even considering the releasability of a document. (This automatically builds in at least another couple of weeks' delay.) Sometimes an agency will disapprove a request instead of returning it to us and letting us know they require a signature. Then we have to start from scratch--reinitiate the document request and go to our contracting officer and ask that he review our request and authorize the fact that we have a need for the data. And still this may not automatically guarantee the release of the data. All it does is to

guarantee that the releasing agency will now consider our request for the release of the data. In many cases, the system is archaic in that there is so much local control that you can never guarantee if you can get documentation or in what timeframe.

With that, I'd like to pass the microphone over to the next speaker, and hopefully we can have some good communication after everyone has spoken.

RYAN: Thanks very much, Harold, for that concise delineation of a lot of the problems that requesters face. I see a lot of heads nodding in the audience, so obviously there's a lot of frustration and agreement out there.

Next, Elaine Burress from DTIC will go over how we handle Forms 55 at DTIC.

ELAINE BURRESS
Directorate of Document Services

This morning I'd like to take a few minutes to discuss with you the procedures that DTIC follows when processing requests for limited documents, as well as some of the difficulties with the system that we have observed.

The procedures that we follow were put in place in 1973 at the direction of W. C. Christianson, Director of Technical Information at OSD. As you are aware, when an organization registers with DTIC, that organization's contract monitor establishes the organization's need-to-know by approving access to specific fields and groups. All subsequent orders for classified documents are validated against this need-to-know. In fact, if a contract monitor approves access to all fields and groups for one contract, we return the DD 1540 and suggest reconsideration. Why? No one contract can be for work in all scientific areas. Therefore, we try to put in some control and request that the contract be registered for the fields and groups pertinent only to that contract. I'll talk about the implications of that in a few minutes.

When we receive a Form 55 we check to see that the AD number and bibliographic data about the requested report are in agreement and are correct. Remember, the releasing agency which will review the request will not be familiar with AD numbers, and will use the bibliographic data on the Form 55 to identify the report. If a request is for a classified report, we make sure that the requester's fields of interest, classification, and special access allow the requester to have the report. Sometimes a user will omit the name of the military or government sponsor or telephone number from the form, or the name of the releasing agency or contract number under which the report is being ordered. Because we cannot process requests without this information, its omission slows down the request while we obtain it. Only after the requests pass this initial screening are they forwarded to releasing agencies.

We generally forward the Forms 55 to the address of the releasing agency that is on the form. This address is taken from the bibliographic citation, which has been taken from the document. We ask that releasing agencies ensure

that the address that we have in our computer is the correct one. A releasing agency may ask us to ignore the address for their organization that is on the document, and instead to use another address given to us informally. This is done so that the request can be suspense-controlled from a central office at the releasing agency. Because this makes handling of the request at DTIC much less straightforward, we ask that you ensure that the address you would like us to use is the one printed on the document and carried in the document citation.

Releasing agencies often move or are disestablished and we are not notified. Old documents are one of our biggest problems. No one wants to accept the responsibility to approve the release of an older document. Some of the addresses that we have for old releasing agencies are obsolete, or the responsible person has moved or retired and no one else has been assigned the task of keeping up with the documents.

As Harold mentioned, some releasing agencies are now requiring that requesters of limited documents have their military or government sponsor sign the Form 55 before forwarding it for approval by the releasing agency. As I mentioned earlier, by citing the Christianson letter, this is not necessary because the military or government sponsor signs the DD 1540 registering the user and approving the fields of interest. Also with the ADP version of the Form 55, there are no signatures at all. DTIC will not forward Forms 55 to the military or government sponsor. This is in line with the procedures promulgated by Mr. Christianson at OSD in 1973.

When we receive approval from a releasing agency, we send the document to the requester. If the releasing agency disapproves the request, we forward the disapproval to the requester. If we do not hear from the releasing agency within 45 calendar days of our request, we follow up our request with a letter citing the control number of the Form 55. If we hear nothing from a releasing agency after 90 days, we notify the requester that we cannot obtain release and we cancel the request. We cancelled 316 requests in July and August, and average 35 follow-up requests weekly.

If we receive a request for a document that is not in the DTIC collection, we use the bibliographic data provided on the request to attempt to obtain the report. We then notify the requester when the report can be ordered.

By the way, with the advent of new distribution statements, the composition of the database is changing. In calendar year 1984, 33.36 percent of new documents entered into the collection were limited and would require a release before secondary distribution to contractors. In calendar year 1985, so far only 19.96 percent of our new input will require release.

Finally, I'd like to share some statistics with you. During the months of July and August 1985, DTIC received 5,525 Forms 55 requesting limited documents, and about half of these were the ADP version. We average 138 requests per day. The people who process these for you work very hard and are willing to answer any questions you have, so do call us. Any recommendations for improvement that you have will be welcome. Thank you.

RYAN: Thank you, Elaine. As you can see from Elaine's talk, DTIC is just not able to make a quick pass-through of a Form 55 coming from a requesting organization to a releasing organization. I'm not sure how many people were aware of exactly all that we have to go through at DTIC in order to send them on to the releasing organization.

And with that, Sara will give us some indication of how her particular organization handles the release of a limited document.

SARA HAPPEL
Naval Surface Weapons Center
White Oak Laboratory

Good morning. I am with the Naval Surface Weapons Center, White Oak Laboratory. I am a librarian, and I do receive the Form 55 requests. I think that I'm probably in a position typical of most releasing agencies. I'm going to highlight major points of White Oak's experience as a releasing agency.

I think the reason the Form 55 request is sent to the library at White Oak first is that we have gone through many reorganizations in past years and technical representatives have been relocated. How to find them can be tricky if you don't have a central locator file. They can become unavailable quickly and you have to be able to locate them in order to get the forms to them.

To speed this process along, I receive a listing of contract numbers and the technical representatives who monitor those contracts. I am then able to identify very quickly the person responsible. I then simply have to determine if he still is at the same location, has his code changed, is he in another location, has he left the laboratory, or is he no longer the technical representative (if he is not, who is). Then I identify the next person that I need to contact. We do this fairly easily, I think, at our site, and we do speed requests along as quickly as possible.

I maintain a log of Form 55 requests--when they're received, when I send them to the technical representative, when they're returned from the technical representative to me. So I have a fair idea of how we're doing with our responses, and I feel that over the past couple of years we've done very well. When I send a Form 55 over to a technical representative, he may, in fact, be on annual leave, he may be on sick leave, he may be on travel for 1 or 2 weeks. So there are time factors that naturally impact on this whole process. Also, newly-assigned technical representatives may take extra time. Since they're not familiar with the reports, you have to get them copies.

Very critical to the decision of the technical representative is the need-to-know that is expressed on the Form 55. One releasing agency indicated last year that they felt it was important that the government sponsor be contacted when a contractor initiates a request. Elaine has already spoken to that point briefly, and I'd just like to go over some statistics on this. I processed 144 requests for limited documents in 1984. (This represents about

half of the requests we receive at White Oak because I process only the requests for reports that carry the performing organization's report number. Another librarian handles primary distribution of our technical reports; she processes the Forms 55 for those and probably receives an equal amount of requests.)

I reviewed those 144 requests that I processed and found that the majority were approved. While I was looking through those requests I also checked to see how many times the government sponsor's name and address appeared on the forms (this information is included on the form for the technical representative's convenience in the event he needs to contact the sponsor). About 119 of those 144 had that information. There were 15 that lacked enough information to contact the government sponsor.

I had to contact 44 technical representatives in 1984 and there are many of them who are monitoring contracts in 1985--45 up through August. A number of the technical representatives monitor several contracts so I often go to the same technical representative for different requests.

I also review the disapproved requests to see what the reasons for disapproval given by the technical representatives are. I'm sure that those of you who process Forms 55 would find it rather revealing to see what's actually happening back at your site in terms of why requests are sometimes disapproved. In one instance, the requester was asking for a report dealing with magnetic signature or sensor data, and the technical representative simply responded that the report did not contain that type of information. Another requester clearly stated the purpose for which the report was needed, and the technical representative did not agree. The technical representative simply said that the report did not meet the intended use the requester had indicated. In one case, the requester needed propulsion information and the technical representative said that that particular information was not in that report. Other responses were just simply that the report was limited to U.S. Government--the requester was outside the government and not entitled to it; proprietary information did not make it possible to release one document; there was insufficient information on the need-to-know, or the need-to-know had not been established at all, or perhaps it was a sensitive need-to-know, and when the technical representative discussed this with the government sponsor they felt the request should be disapproved.

I did talk to one of our technical representatives who is in the position of responding to a number of requests. His documents will very often carry the export control statement so there are some critical factors involved here. I asked him for an indication as to how he handles these requests. The requests that he deals with are for reports concerning metal matrix materials, and most are from aerospace companies working on defense contracts. He stated that he would feel quite at ease approving any request from an aerospace company, and the most critical factor to his decision would be the identity of the organization. This material is basically for U.S. citizens only; and he will respond on the form that the information is to be released to U.S. citizens only. He would like this information to get back not only to DTIC but to the requesting organizations so that the requesters will be particularly careful about who sees that report. He indicated that in one instance he was concerned enough to request that the individual provide a birth certificate.

My impression, as a librarian who deals with technical representatives, is that they really are conscientious about their responsibility. They want to see a good need-to-know. They tend to be very knowledgeable about the work that's being done and know that a particular company is under contract and in need of the report. In cases where they're not really sure whether to release it or not, they will talk to the government sponsor.

So this is our experience at the releasing agency end of the system.

RYAN: Thank you, Sara. I think you've heard three very concise explanations that really ran the gamut of what each of the individuals at a representative organization must go through. What I would like to do now is ask that if you have any questions, please use the microphone. We will try to direct your questions to an appropriate panel member.

WILLIAM HAMMETT, CENTER FOR NAVAL ANALYSES, ALEXANDRIA, VA: I have four general comments to make. First is a suggestion. A lot of our study directives are classified. A detailed justification would classify the Form 55. If I'm submitting it online, that is something I obviously cannot do. If the releasing agency could contact the requester and let him know that a more detailed justification is needed, rather than going back through DTIC, a letter with a more detailed justification could be prepared, and if it had to be classified, so be it. This could be sent directly to the releasing agency.

The second thing I have is a question more or less directed to DTIC. I've been told very informally that there is a certain coding system involved in contract numbers. I'm guessing on this, I don't really know. Assuming that's the case, could the contract number itself be another means of facilitating DTIC's ability to adequately endorse the need-to-know?

Third, I'd like to make a general comment about some releasing agencies requiring a signature on a Form 55. I came up against this once myself. In fact, it was an educated idiot called the Scientific Advisor to the Chief of Naval Operations--and you can quote me. That's how high up he was. He called screaming bloody murder that we hadn't justified properly, this wasn't signed, etc., etc. The man was, in fact, an analyst who knew nothing whatsoever about the procedures in DTIC. We never did get the report, and in disgust I finally asked him on the phone, after he had half the fourth floor of the Pentagon in havoc, "Why did you people even bother to put the report in DTIC if you're going to be that tight with it? You should never have had it sent down there if it's going to be that controlled." This was one that was announced in TAB. I think that this thing on releasing agencies requiring signatures is ridiculous. That's covered by the registration process. Perhaps releasing agencies doing that should be informed by DTIC that they're reinventing the wheel, causing further administrative work that's totally unnecessary.

Last, I'd just like to make a nice comment to Sara from NWC while I've got the floor. My dealings with both White Oak and Dahlgren have always been very pleasant, and the support you give us is quite good. Thank you.

RYAN: Sara, do you want to comment about Bill's first comment about whether a justification being classified would help if a letter were prepared, and whether your technical representatives would respond to that?

HAPPEL: I think that is a good suggestion that a letter accompany the Form 55.

BURRESS: I'd like to make a comment about your suggestion concerning DTIC use of contract numbers, or even need-to-know statements. What the distribution statement on the document says is "release to U.S. Government agencies only. All other requests to..." So we at DTIC don't have the authority to do any secondary distribution on that report. We can't look at your contract and say that it is within your need-to-know. We have to follow that distribution statement. That's why we can't use the information we have to make secondary distribution.

HAMMETT: I was really asking if the contract numbers themselves were coded in such a way that they mean you're on distribution for certain information. Does that facilitate the justification? Does that help the process?

BURRESS: No.

LEON BURG, U.S. ARMY TANK AUTOMOTIVE COMMAND, WARREN, MI: I've been in this field for 20 years now and a good part of my time is given to the problem being discussed this morning.

In former years, every Form 55 had to be signed in two places--first by the government sponsor endorsing the need-to-know, and then by the releasing agency. Then the delays were intolerable--a request would go to a government sponsor and some lieutenant would put it into his bottom basket and get to it whenever he got back from his next period of active duty. So the Form 55 online was an improvement.

What appears on the Form 1540, the original registration, is critical. I have received two different requests for registration on the same contract--a new contract. One was prepared by the project engineer; one prepared by the director of research. The project engineer checked off about five or six pertinent subjects; the director of research checked off about 55. He forgot that the fields of interest are supposed to be drawn from and be consistent with the scope of the specific contract. The ones I hate most are the ones which have to do with QDA or QRI information (information for industry), what I call fishing tools--they seem to entitle the person to get everything from everybody. One organization I do business with has active contracts with us for building vehicles. Current technical information is needed. But every second or so request from them says that they want a particular report for their QDA, QRI purpose, which means they hope it will be useful someday.

Next, the matter of who approves. I find that the most useless thing to put on a Form 55 is the name and office of the contracting officer. He usually only knows how much money is to be spent. If you want to get action, put down the name of the technical person, the one who is called a project engineer, or

project manager, the one who knows what kind of information will be needed. In fact, I have recommended to frustrated requesters that since we're not going to release the total report to them they have their military sponsor order the document and pull out the information that is needed for their use. I've asked project engineers why they keep this information from requesters when it's needed, only to find that they didn't know they were doing it. Very often, the requesters should be asking the project engineer they're working with. If you have a Navy contract, ask the Navy laboratory you're working for to get you the information you need, and let them know you need it in a hurry. If it's important, you could also put on the request, maybe under "required for," the name and office of the person who will be using the information so that the person who is approving or disapproving may get additional information he may need directly. That will also speed up action.

Another suggestion. If you have any influence over the people who write contract reports, try to get them to put down, where it says "distribution limited," a useful address so that the request can be directed to the right place. The follow-ups I have received usually have been because the request got addressed to some office that had been reorganized or disorganized, or dealt with old contracts. The people who knew anything about them had long since retired.

I hope some of my suggestions will help.

RICHARD JENKINS, INTELLECTUAL PROPERTY DYNAMICS, GLENSIDE, PA: I guess my question is a very simple one. What is DoD doing, or what can be done to delimit limited documents in the same manner classified material is downgraded?

BURRESS: I can tell you what is supposed to happen. When a releasing agency gets a Form 55 from us, they are supposed to, at that point, review the document to see whether or not they can change or get rid of the limitation. There is also supposed to be a periodic review of limited documents. I understand that to be tough to do in real life, but it is in the regulation that limited documents are supposed to be reviewed periodically to make sure that the limitation is still valid.

SMITH: I'd like to address something that Leon Burg mentioned regarding submitting the request to the project engineer of a particular contract. I think informally many contractors do this, and know of the ability to be able to work through the project engineer when they need something rapidly. The one difficulty I see, looking at the whole system generically, is that we are back-dooring information that is outside the formal system of releasability. We all do it and I think we all almost accept it, either from the government standpoint or from the contractor standpoint. But if we encourage that to be done, what is the sense of identifying data in DTIC and going through a limited distribution process? It's a means of acquiring something quickly and legitimately (hopefully), because there is a need and we're going through formal channels to get it, but the formal channels are somewhat outside the formal channels for normal information distribution.

KATHERINE ARMENDT, IIT RESEARCH INSTITUTE, ANNAPOLIS, MD: My company has run a facility for a DoD agency for 20 years. On 1 October we got a contract which continued our work running this facility, and every limited document we requested prior to 1 October which was approved after 1 October was rejected because our contract number had expired. I got all these little white slips saying that my contract number was wrong and I couldn't have the documents, and I called DTIC. Billie Corley offered to take care of this for me. DTIC was very helpful, but there's got to be a way around this.

QUESTION: Why didn't your agency just renew under the same contract number?

ARMENDT: It went out for bids and we won it again, so it's a new contract. But we are the same company doing the same work to run the facility.

BILLIE CORLEY, DTIC-L: If it's an ongoing contract, what we normally do is call the certifying official to make sure it concerns the same subject fields and groups, and that it is indeed an ongoing contract. Then we just make the adjustment and change the contract number over, and resubmit the request. We just verify to make sure it is the ongoing contract for the same people that issued the first one.

ARMENDT: Is there any way we could do this before 1 October so everything doesn't get delayed? We told you in July it was going to happen. Is there any way we could submit a letter?

CORLEY: No. That's the way the computer is set up.

RYAN: The system has quirks all along the way.

NORMA WALDE, ATLANTIC RESEARCH CORPORATION, ALEXANDRIA, VA: I have a very simple question. Why are limited documents harder to obtain than Confidential or Secret documents?

SMITH: Confidential or Secret documents may or may not carry a limitation.

WALDE: If a Secret or Confidential document has no limitation, they're very easy to obtain. Yet, if you look from the perspective of the real world, it would make more sense that a Secret or Confidential document should be much more difficult to obtain than an unclassified limited document. My question is why do the releasing agencies assign a limitation at all if the report is not Secret? Why is it more difficult? I could call up DTIC and give them my contract number over the phone and they would send me a Confidential or Secret document. This surprises me because when I try to get a limited unclassified document it could take years.

RYAN: Let me try to answer that based on my past experience. From the point of view of a releasing agency, there are categories that documents fall into. When a Form 55 comes in the author of the document, or the technical representative, would not even have to look at the Form 55. The justification

on that Form 55 makes no difference to them. They are going to release it. The reason there was a limitation placed to begin with was to prevent it from being distributed too widely, from ending up in NTIS, and eventually in the hands of the Soviets. Any valid requester is automatically going to get that document. Engineers do not even read the justifications on the Form 55. A certain segment of limited document releasers from some laboratories don't even review a justification. On the other hand, there are certain documents that, regardless of the justification, you're never going to get because the releasing organization does not want them in the hands of a contractor at a particular time--the situation may change 2 or 3 years down the road when the program is less sensitive. Then there's the middle ground where the releasing official will take a look at the justification, and if it relates to the content of the document, then they do or do not release. But the releasing organization doesn't have just one standard practice. There's a strata of what they really look at and how they make their decisions. From the point of view of the particular organization I'm talking about, the releasing organization does not care what the contract monitor has indicated as the fields of interest for the contractor. They are more concerned with the content of their technical document and whose hands they want it in. That's the overriding decision, not what a contract monitor indicates the need-to-know of the requester is, but what they feel the content of that document is and whether or not their organization wants it disseminated widely or narrowly.

WALDE: Do they keep a list of who gets the document, then? Do they try to keep a running account of how the document has been distributed, to how many people?

RYAN: Yes. I know the organization I worked in did.

COMMENT: It's often the only reason for having the limitation on it.

COMMENT: Exactly. One standard practice is that after you've had 20 or 30 requests for a limited document from contractors and you've approved 15 or 16, you take another look at it realizing you've released it to 16 contractors and wonder what the difference is between those 16 and the seventeenth. Many times they'll just switch over to a blanket release at that point.

WALDE: Another question concerning what Harold said. When the releasing agency came back and required you to have the contractor sign off, is there a place he signed off? Was it just in the justification area? Do you think that it's worthwhile to go ahead and get the contract monitor to sign off on them? Are you keeping records of which releasing agencies, for your own benefit, are requiring it so that you can automatically know when to send it off? Do you recommend that others start doing the same for their own benefit?

RYAN: I assume the place they'd want a signature is the block where you give the contract monitor's name and telephone number. As a rule of thumb, I would say don't send it through the contract monitor for a signature because the majority of DoD organizations do not require that signature. You're going to get quicker turnaround if you don't. Once you begin to pick out the DoD

organizations that require that signature, you probably save yourself time by sending the request through them first. How many DoD organizations require a contract monitor signature on the Form 55? (No hands raised.)

WALDE: How many possibilities are there?

RYAN: When Harold asked his original question, the break looked to me about 75 percent requesting organizations in here and about 25 percent releasing organizations. I think there's probably close to 150 people in here, if not more. So that gives you an idea of how many releasers are here and none of them require a signature by a contract monitor.

PATRICIA PRENTICE, NAVAL AIR SYSTEMS COMMAND, WASHINGTON, DC: Harold, I'm responsible for your one horror story. We would never give a DTIC report requested under a Form 55 for an RFP. It's called fishing, at least with us.

I'd like to bring up another thing. The person we had entering our reports into the DTIC file put in the library's code, which is where they're going to come in the releasing agency. I asked that the actual code that releases the document also be put in for our information in the library, and this is where DTIC gets into the two addresses. It's very helpful that when DTIC sees NAVAIR they automatically put my code. I hope it doesn't cause too much trouble. It hasn't in the past. Occasionally one will slip through and go to the person at NAVAIR, the technical man, but he sends it back through us anyway.

CAROL RAMKEY, COMMAND AND GENERAL STAFF COLLEGE, FT. LEAVENWORTH, KS: I wanted to talk a little bit more about real life in relation to limited documents and why they're so hard to get released. With classification, there are particular criteria for the decisions made, including written guidance. It's different with putting a limitation on a document; in a lot of cases it's the perception of the author. From what I've seen at the Command and General Staff College, in some cases I think it makes them feel more important to make it limited. There sometimes is really no reason for a thesis to be limited. There's no one place that anyone can go to in that document and see why it's limited. The author has long since gone and no one is going to take the responsibility to delimit it because they don't know why the limitation was put on originally. We have additional problems, for instance, because at one point TRADOC decided that every master's thesis published at the Command and General Staff College would be limited, and for 2 years everything that came out of there was limited. There's no reason at all for most of them to be limited, and they're never going to be delimited because no one is going to take the responsibility to do it.

RYAN: Thank you. I'm sure that's not encouraging to a lot of contractors.

SHERRIL HISAW, HUGHES AIRCRAFT, LOS ANGELES, CA: I have a couple of statements, a couple of questions, and a couple of requests. One thing you can do to help get your Form 55 requests approved is to keep your sponsor aware of all your contracts. To make sure he knows what is happening at your plant when he's called concerning a limited document request, give him a synopsis of your contracts. I send mine a synopsis of every contract and also a copy of my Form 55 when I send it over the terminal.

Another thing you can do in your request is to put a statement that says, "the actual using employee has a need-to-know with program manager's approval on file in this office." They do get quite a few calls from the releasing agencies.

One thing I'd like to see happen is to get a phone number for the releasing agency on denials. Also, I'd like to see in the limitation statement if there is a releasing form for software required. Why should we wait 45 days to find out we have to send in one more form? If this information is included in the statement, we can add the form to the Form 55 at that time.

Also, if DTIC has no response from a releasing agency after 45 days, could we be notified of any new changes of address at that time?

BURRESS: I'm writing everything you said down, and we're certainly going to consider it. I think they're all good suggestions and we'll try to figure out a way to do what you've asked for.

MARIE STONE, PENTAGON LIBRARY, WASHINGTON, DC: Frequently, one agency within the building will be requesting a document that's controlled by another agency down the hall. Would it be possible to get a signature on a written Form 55 before I send it to you?

BURRESS: Yes. We do accept preapproved Forms 55.

KAY KEENER, NAVAL WEAPONS CENTER, CHINA LAKE, CA: I agree with everything that's been said, but there are additional problems on the request, and I think a lot has to do with the education of the authors of these papers as to what these limitations really mean. It's not DTIC's function, but it will have a lot more impact coming from DTIC than if we tried to have in-house education of what these statements mean to the authors. Often they'll put on the document that no one can get it without individual approval, and that hits their own agency, their own people. They can't get their own documents. They just don't understand these treatments. I think an audio-visual tape or something like this that we could present from the library to the authors of these papers might clarify a lot of the statements and solve a few of the problems.

RYAN: I think that's a very good suggestion. I formerly worked at a laboratory that released documents, and I know exactly what you're talking about. Some education is needed.

STERLING ATCHISON, DTIC-Z: I've worked for DoD in a number of different capacities, as the Deputy Director of Naval Technical Information, as a designer of some changes in this process, at one point as a researcher in a laboratory, and as a manager at headquarters. I've worked with the sensitivity and technology transfer issues, so I have a couple of suggestions.

It's going to be almost impossible to educate all of the new researchers in the DoD about what distribution statements mean. If you go to the top management in a place like the Naval Surface Weapons Center, you're going to find that the technical director knows what it means, the associate technical

directors, and some of the people who are concerned about overall management and the management issues in defense R&D will know what it means. I have a suggestion then, in connection with what DTIC might do. They might hold a small meeting with the heads of the technical information departments that submit information to DTIC. One way that organizations determine that there is an appropriate statement on a report, and that the author of the report really understands what he's doing is that all reports go through some central point, and it may not be the library. In fact, I don't think it generally is.

There are also other things. There are some pretty influential people in defense R&D, and there should be some contact with them about what ought to be done so that you can get the documents that you need in order to carry on R&D. As a one-time manager of that Navy NICRAD program, I know that one of the purposes of that program was to register people so that they could do their IR&D and be ready. It would also let you know, over a period of years, whether there was any pending RFP or not.

Another thing that ought to be thought through has to do with sensitive documents. When I was a kid in a laboratory I wrote a document and used some Confidential data. They needed it the day before they told me to do it. I went downtown with it stamped Confidential, and when I got there, they told me to stamp it Secret, NOFORN. The next day they called and, guess what, the first piece of Top Secret data I ever saw in DoD I wrote myself and I wasn't cleared for it. I really thought it was a Confidential, but it had operational significance, it had significance in much higher levels in the government than had occurred to me at 25 years of age or so. But there are some things that are always going to be sensitive, so there ought to be some way to get this information to the specific people who are doing the work in our contractor facilities. Some people, to be quite frank, are never going to give it to you to put in the library. If I can be of any help, I'll try to work with some of the people at DTIC to see if we can't do something about the process because it is, from experience, horrendous.

EILEEN COLLINS, U.S. ARMY NATICK RESEARCH AND DEVELOPMENT CENTER, NATICK,

MA: We are both a requesting and releasing agency, but involved more with the releasing end. On most of the distribution statements that go on our technical reports coming to DTIC, we'll list the releasing agency as Commander, U.S. Army Natick, and will include the laboratory from which the report was originated (usually a symbol). Now, many times this is crossed out when it gets to the command and it's bucked up to the library. What would you need from me to say that all of these are to be sent to the technical library, which is where it's controlled completely, instead of having them go to the different laboratories?

BURRESS: We can make that change, to include all your old reports.

COLLINS: For future ones, will it be necessary for me to tell our technical editors. All our reports go through our technical editors before coming to DTIC.

BURRESS: Put your address on the document and that will do that.

RYAN: It's nice if you can exercise that kind of control. Unfortunately, sometimes there are problems. When documents come into a releasing organization, sometimes if it's their own in-house document, they can quickly make a decision. Sometimes it's a document that their contractor did for them and they might want to talk to somebody else. Sometimes it's the case of one DoD organization doing the work for another DoD organization and then they claim they want to talk to them.

QUESTION: Lately we've received a number of requests for limited documents on old test reports that were done at Yuma Proving Ground or places like this, back in 1964. This involved a lot of leg work. I have found that the only way I get my releases done is not to send them through the mail to anybody. I have to hand them over physically, and say, "do you know anything about this?" Since these are for reports as far back as 1964, I don't know where to head to get the limitation taken off. Where do we go from here?

RYAN: I know exactly what you mean. Nobody wants to take responsibility--whether you're dealing with a limitation or security.

It's true that sometimes what is necessary is to go to the head of the laboratory and let them know that the person who monitored this project and wrote this report left, or retired, or something. Ask them who they want to designate. Very often they can tell you that so-and-so is the person on their staff who now knows that subject. As the releasing agency, or internal organization, you do have to know. And if you have to, then you find out because rejecting the request for no reason is impossible.

COMMENT: I'd like to make a general statement about some of the comments that are being made. From a contractor's standpoint, I'd like to say we, the contractors or requesters, certainly appreciate the effort that the releasing agencies do go through internally, and we realize that many of these requests are coming through for documents that were written years ago--the laboratory that wrote it is extinct, certainly the division or the code that wrote it doesn't exist any longer. I think it just points up the fact that they continue to assist us, and we do work together. It just expands and extends the length of time to procure material. I wish that there were some way of correcting this situation because it's putting an unnecessary work burden on all sides of the fence. I don't know whether DTIC is the medium by which we can attempt to make some solutions, or approach OSD or whomever, in terms of coming out with some new regulations or new guidelines or a new manual or whatever. But I think that might be the next step.

COMMENT: One of the things coming out in this session is the education factor involved that Sterling Atchison brought out--that somehow we get information back to the authors and the technical writers themselves as to what limitations really mean. I think that's a good suggestion, and the library is not the place to come up with that information. At our site it would be the publications people. We have had the people in publications come to the library and ask for information about these limitation statements. It is a good

suggestion that DTIC provide a broader explanation of what is entailed when the author selects a certain statement. I would also suggest that the publications people at your releasing agencies are the people that should get that information because, hopefully, they are the ones who are working with the authors and the technical people as they write their reports.

QUESTION: I would like a confirmation on a statement that was given to me over the phone by one of your DTIC personnel, that when we give the okay for anyone asking for a particular limited document, and say they can have it, then DTIC releases it. It was my understanding that that holds true for 1 year for that particular agency, so that if they wanted to request extra copies at different times during that year, they may do so. Is that correct?

BURRESS: Yes, it's a year--as long as it's on the same contract.

AMY HURD, DTIC-F: I work in the DTIC Reference Section. I had a comment for Mr. Smith in reference to requesting limited reports for RFPs. You really should not be coming to DTIC for reports that are for RFPs. You should be going directly to the organization the RFP is with, and they should be getting copies for you. That could save you a lot of time. The reason is that DTIC users are registered under contracts they're already working on. It really creates an unfair advantage for competitors who are not registered with DTIC.

SMITH: Thank you. I appreciate that statement. I would like to make one comment regarding it, though. Not always does the sponsor of an RFP agree to procure information that they have not identified as being part of the required documentation. The required documentation they're ready to disseminate to each respondent to the RFP, but many times they are reluctant to go outside that, even if a contractor or a respondent has identified the need for additional documentation. I know what you're saying is correct, it's just that we're in the middle sometimes where there's no source of getting the documentation.

KEENER: This has to do with the problem of getting reports in DTIC. We get a lot of requests for information reports which we have to send on to the author to get approval for release. It's up to them to release it and provide copies. I encourage people to put informal reports in DTIC, because that's usually the raw data that the researchers need, instead of the final reports or the formal reports that are kind of smoothed over. But we have trouble. We've been trying to encourage getting the reports in DTIC, but they don't want to fool with it. They don't want to go to the trouble. If we could get some leverage, maybe meeting with the technical directors and briefings from DTIC to let them know what these things mean and that you are protecting the documents--that you won't release them unless they say you can--maybe this would give them more confidence. We tell them but I think if they heard it from DTIC, it would help the problem because we don't have that much leverage in the library.

RYAN: Good point.

Thank you very much for attending.

INTERN PAPERS. Randy Bixby/Georgene Chastain/Roberta Cohen/Marian Delmore/Barbara Lesser/Shirley Witges - DTIC

INTRODUCTION
ROBERTA COHEN/BARBARA LESSER

Good afternoon. Welcome to the session on the Intern Papers. This 2-year program was begun in 1977 and was designed for people who have experience and training in Library and Information Science.

The first year of the program consists of rotational work assignments in each of DTIC's directorates, special training, course work, attendance at seminars, and visits to other information centers. Interns are also expected to write two major papers that are of interest to the intern, but also of value to DTIC. That is, they must deal with a topic that will help DTIC improve its operations, products, or services. During the second year, the interns work as special assistants in one of DTIC's offices.

There are six interns in the program at present. This morning, four of them will present their papers. Each presentation will take approximately 10 minutes. We'll then allow 5 minutes for questions. We will also take questions at the end of the presentations, if time permits.

Our first speaker is Randy Bixby. She'll speak on the Flow of Scientific and Technical Information in the U.S. Army Research Laboratories. Before coming to DTIC, Randy was a reference librarian at 3M in St. Paul, Minnesota. She received her MA in Library Science from the University of Wisconsin at Madison.

RANDY BIXBY

Hello. My first intern project was to examine the flow of scientific and technical information (STINFO) in the Army's research laboratories. The project was undertaken to find out how the Army's STINFO system is organized, how it is budgeted, and how it works. I also wanted to find out how DTIC fits into the Army's scientific and technical information program.

Because I knew I wouldn't be able to cover the whole Army in this project, I decided to limit my efforts to the four major research elements in the Army. These are the Army Materiel Command, which has 20 research laboratories; the Army Corps of Engineers, with five laboratories; the Surgeon General's Office has nine research laboratories; and the Army Office of Personnel has one laboratory. I talked to people in each of these research areas about what their information needs are, how the Army's information system works for them, and how they use DTIC in their information seeking process. I also talked to people at DTIC who are involved in the exchange of information with the Army.

The Army has a formal STINFO system established by regulation AR 70-45. This regulation implements DoD Directive 3200.12, and pertinent provisions of two public laws--94-282 and 96-480. The regulation establishes policies, assigns responsibilities for the Army's STINFO program, and sets up objectives for carrying out the program.

Responsibility starts at the level of the Deputy Chief of Staff for Research, Development, and Technology and filters down through the various levels to the research in the Army laboratory. DTIC has input into the Army's STINFO system throughout the whole program, but I concentrated my efforts on the research laboratories and the technical information centers. At this level, information flows in both directions. The research laboratories and the information centers take information out of DTIC in the form of technical reports, work unit summaries, or other DTIC products and services, and they also put information back in, primarily in the form of technical reports or work unit summaries.

Army research laboratories and technical information centers make heavy use of DTIC's services. All of the librarians and researchers that I talked to mentioned DTIC products or services which were important to them, either as current awareness tools or demand products.

It's difficult to rate DTIC as an information source, as much of the information that we provide is unique and can't be obtained elsewhere. The relative value would probably also depend on the individual laboratory or the subject area of the research effort.

The researchers that I talked to said they had three primary information sources: scientific journal literature, DTIC, and meetings and symposia. They weren't really able to tell me which was the most important, but from what I gained from talking to them it seemed that DTIC was certainly among the primary sources of information that they use.

As a result of talking to people in the laboratories and the information centers, I came to some conclusions and I made some recommendations in my paper. The Army STINFO system works pretty well. The people out the in the field seem to be getting the information that they need. However, I found that there was some variability across the entire research effort because each of the Army's major commands, those four commands that I talked about earlier, is autonomous. They can set up and run their information systems as they see fit. This variability can affect the quality and the emphasis of the information services that are provided.

A lot of cross-interactions and alternate channels have developed with the researchers and with the librarians in the information centers.

One of the recommendations that I made in my paper was that DTIC should work closely with the Army to assess the current and future information needs of its researchers. A DTIC staff member with the assigned responsibility to act as liaison with the Army researchers or with the Army's information community should be established. I also thought that DTIC should make sure that the Army researchers know what DTIC has to offer. Even though the people that I talked to seemed to be aware of DTIC's products and services, there are a lot of people out there who don't know everything that we can offer them to make their research efforts more cost-effective and efficient. The Army and DTIC should also continue to work together to provide better and faster information services in the future.

I'll answer any questions you may have at this time.

QUESTION: Do you sense that the Army researchers are aware that one can pick up a fair number of citations to journal literature from DTIC, or were they mostly unaware of that? Within DTIC there are citations to literature, prepared mostly by the IACs.

BIXBY: I'm not sure. They do make quite heavy use of the commercial data base services, so they may find most of their citations on the literature through searches on services like Dialog, BRS, SDC. But it may be something that we should make them aware of. I can't say that anybody I talked to even mentioned using information from the IACs, so that's another thing we should make sure they know about. They may not be aware of all the things that the IACs can do for them.

QUESTION: Did you find any correlation between use of information, value of information, and the distance from DTIC? I'm on the west coast and I think it makes a big difference.

BIXBY: That's something that we'll have to consider, then, when we're dealing with people and urging them to use DTIC. Another thing that I had suggested in my paper was that DTIC should get involved, possibly at the level of the new personnel briefings or something like that, in the laboratories. When somebody gets an orientation in their new laboratory, they should find out about DTIC at that point.

COMMENT: I kind of resent the fact that you found a zero in 1985 for submission of reports from the U.S. Army Tank Automotive Command. I go to sleep confident that I must have submitted something since 1 January.

BIXBY: The searches that I did were in February or March, so if they entered the system after that, they wouldn't be included.

QUESTION: Do you run hierarchical searches where you do pick up the various renamings, rebaptizings, and on, of some agencies? Somebody might well have explained that during the period of the AMC reorganization, the Army's commands under AMC were split into two--a Materiel and a Research and Development Command. Most of those have since been recombined. Our command was split into a TACOM and TARADCOM and is now once again one. So we regard the continuity as unbroken. Maybe your source codes don't.

BIXBY: I used the source code that was assigned at the time that I did the search. If there had been a number of name changes, I wouldn't have been aware of them. When there's a name change, I don't know if the source code is reassigned to the new name or if they assign a new source code.

COMMENT: That might be the subject of a paper then--source codes.

BIXBY: That might be an idea. One of the things I was trying to do, that I was looking at when I did those searches, was to see if there really had been a decrease in the number of submissions. It looked like about 50 percent of the laboratories were submitting fewer reports. We have to look into that to find out why.

MODERATOR: Our next speaker is Georgene Chastain. Georgene received her MLS degree from Catholic University. She worked at the Himmelfarb Health Sciences Library at George Washington University and at the Physics, Chemistry, and Nursing/Biology Libraries at Catholic University, before coming to DTIC. Georgene is presenting her paper on an Interface for the Directory of DoD-Sponsored R&D Databases.

GEORGENE CHASTAIN

A Directory of DoD-Sponsored R&D Databases has been available in paper copy format since September 1984. This directory lists a portion of the DoD R&D databases, including information on the database name, dates of coverage, points of contact, hardware/software configurations, and a description of each database. The directory will be made available for searching via the Defense Gateway Information System, otherwise known as Gateway. Gateway is being developed to provide online streamlined methods for identifying, accessing, searching, post-processing, and analyzing data from different databases of interest to the DoD RDT&E community. The online version of the directory will be called the Database of Databases.

In anticipation of the implementation of this directory on the Gateway, the purpose of my study was to contact existing and potential users of the directory in order to gather information on how they use it. The results of this study suggested specifications for an interface to be incorporated into the Gateway system for searching the Database of Databases. While doing some background research on my study, I read many articles on interfaces being developed to make searching of online databases easier for a user of a system. A selective bibliography of these articles is contained at the end of my report.

I decided that I would compare the suggested specifications resulting from my study to four existing interfaces: CONIT which stands for Conversion for Network Information Transfer, a user-friendly interface developed for searching commercial online bibliographic databases by Dr. Richard Marcus at MIT; ASSIST, which is a more sophisticated version of CONIT containing some expert system features and was also developed by Dr. Richard Marcus; FRED which stands for Front End for Data Bases, is a natural language front-end processor developed by Dr. Gabriel Jakobson at GTE; and CITE which stands for Current Information Transfer in English, a natural language front-end processor with some expert system capabilities developed to search the MEDLINE database by Dr. Tamas Doszkocs at the National Library of Medicine.

In order to gather information for my study, a questionnaire was developed. A sample group of people, including both intermediaries and end users, were contacted and asked to participate in the study. Telephone interviews were used to collect participant responses. The methodology that I used, and the results of the study, are described in greater detail in my report. Based on the

participants' ranking of features for an interface, it was hoped that one of these four interfaces would stand out as being the most effective interface for searching the online version of the directory on the Gateway. CONIT and ASSIST both had many features which were ranked highly by the participants of the study. Both CONIT and ASSIST had been developed and are being enhanced by Dr. Richard Marcus at MIT. From the results of this study, I have recommended that DTIC contract with Dr. Marcus to develop the interface for the Database of Databases on the Gateway, to include many of the features of CONIT and ASSIST.

Thank you.

MODERATOR: Next, Marian Delmore will discuss her paper on the development of an Information Sheet for DROLS Intermediary Users. Marian has worked as a reference librarian at the CIA and also at the Northern Virginia Community College. She graduated from the University of Pittsburgh Graduate School of Library and Information Science.

MARIAN DELMORE

I'd like to talk with you about the development of an information sheet for intermediary users of DROLS to be titled "Current Topics for DROLS Searchers." This one-page information sheet, printed on both sides, will be produced bimonthly, and its purpose is to provide you with a search strategy aid based on a current topic, which will be useful in searching DROLS.

Since DROLS is a complicated system, this sheet will inform and encourage you to use DROLS when you are going online. This sheet could also be thought of as a continuing training aid.

The current topic will be an attention-getter, for example "Terrorism." As the sheet is produced every other month, the topics will show you the diversity of reports that are available in our Technical Report database. This is a large database and covers a variety of subjects.

The parts of the information sheet are, briefly, the current topic or attention-getter; a typical search request, such as the type that you may get in your library; a search strategy showing you one way that this search could be done; an analysis of the search strategy to include, perhaps, alternate ways of doing the search and giving you the rationale of why the search was done in a particular way; a brief printout of some of the results of the search, so you could know what you might expect from this type of search; and finally, a contact point at DTIC is given--the name of the person doing the information sheet so that you can call or write and make suggestions as to topics or format. The format is flexible. While we feel that this is a good format to start with, there may be reasons for rearranging the format in the future.

Extensive user contact was an important part of this project. It was necessary to obtain your input and your ideas for the design and then the evaluation of this information sheet. Some of you in the audience today may be among the 71 users that I contacted as I went through my two telephone questionnaires. I'd especially like to thank you for the time you spent with me.

The overwhelming majority of users, or 85.4 percent of those contacted in part 2 of this questionnnaire said that this sheet would be informative to them. Even if it were not always in their particular subject area, the search strategy itself is often transferable.

Some of the benefits to you are: the information sheet is timely because of the use of a current topic--it is also timely in the sense that many producers of commercial databases have been or are starting to produce information sheets or brief newsletters; it is professional; as a search aid it will be helpful to you as you do your job of searching; and the format makes it quick to read and easy to save for future reference.

This sheet will be managed by a staff member from our Office of User Services at DTIC. To provide further valuable input, there will also be a committee with a member from each of the following areas at DTIC who will work with the person from User Services: DROLS Retrieval Training--these are the people who encounter the problems that searchers have when they're learning the DROLS system, as well as in using DROLS; our Current Awareness Section, because of their extensive contact with users regarding current subject requests; our Retrieval Branch, because of their expertise and experience in dealing with search requests and setting up search strategies; and our Systems Design Branch, because of their work with new DROLS implementations.

A benefit to both DTIC and to you as users will be the increased communication between the user and DTIC. I think that this is very important. I will be working with this project until the first or second issue is completed. If you are interested in receiving this information sheet, let us know. We will also be sending out a mail form in order to determine who would like to receive the information sheet. We hope to have our first issue sent out in January.

Thank you.

MODERATOR: Our last speaker is Shirley Witges. Shirley has a Masters degree in Library and Information Science from the University of Illinois at Champaign-Urbana, and a Masters degree in Education, Instructional Media from Southern Illinois University. Before coming to DTIC, Shirley was a reference librarian at the Commerce Library at the University of Illinois. She also has had extensive experience in learning resource centers. Shirley will present her paper on Computer-Aided Instruction.

SHIRLEY WITGES

I'd like to welcome all of you. You're looking at the world's longest title for a paper: Examining Learning Theory of Online Information Retrieval Systems and Applications in Computer-Aided Instruction: Implications for DTIC's Efforts in CAI. I'll be referring to this as CAI.

I'd like to present a brief summary of what I've done for my paper, a few conclusions that I arrived at, and then some of the recommendations that will ultimately affect you as users of our CAI packet.

For those of you who are experienced with DTIC and also for the new users in the DTIC community, DROLS stands for the Defense RDT&E Online System. As all of you know, it's our online information retrieval system. You can currently access the Technical Report, Work Unit, Independent Research and Development, and Program Summary databases.

It would be nice to say that DROLS is easy to use and that there are no complications or complexities; but as all of you who search DROLS know, that is not really the case. It is a difficult system to learn to use. In fact, sometimes you have to be "The Thinker" to use the system, and if you've wondered what Rodin's "The Thinker" was thinking about, it could be the number of different strategies or functions of DROLS. You can search, qualify, sort, list, display, order, transfer, erase--it goes on and on. Again, it is difficult to learn all the capabilities of the system. We have very capable trainers at DTIC--Jim DePersis and Laurie Lubsen, who all of you know. But DTIC decided to try a supplemental CAI approach also.

DTIC developed a CAI tutorial called, "Introduction to DROLS Retrieval." This was begun back in 1983 as a major project, 2 years before I arrived at DTIC. The objectives of the project were to develop capabilities for CAI in DROLS retrieval and to provide two prototype courses. The intent of the program was to try and give an introduction to DROLS for new users before training occurred. Another objective of CAI was to serve as a refresher course for those of you who knew other information retrieval systems or for those of you who had some experience previously with DROLS. We have since developed a microcomputer version and a version of the CAI which will run on the 1160 mainframe Sperry that we have.

I would like to talk now to those of you who are not familiar with CAI. When we talk about a tutorial we're talking about sitting in front of the computer with material that's coming up on the screen about DROLS. You'll have text, there'll be questions, you'll put in your answer, the machine will say "that's good" or "not so good"--but it will give you feedback on what you put into the system. This is what we mean by a tutorial--a kind of give-and-take plus feedback provided for the user.

From the major project that DTIC had begun, my paper evolved into covering these different topics that were interrelated: I wanted to see how people learned online systems; I wanted to find out what we knew about how people learned these systems (it is a very complicated learning task); I wanted to find out how learning theory and CAI were related because we know that certain types of CAI are more conducive for learning certain knowledges and skills; and I also wanted to look at what we were doing with our CAI at DTIC.

I looked at a rough draft version of the Introduction to DROLS Retrieval that was developed about 75 percent in-house at DTIC. We had a contractor, Global Technologies, who also took a look at what we had done, and they assisted in our efforts.

There's actually been very little research on learning online systems. I called people and tried to do a literature survey, and I found that there is little research in this area. It is now becoming more researched because of the interest in the mass market that a number of vendors have in how the end users learn these systems. We found that it's a very complex learning task because of all the different steps that one must go through in learning these systems. I also found that there's really no agreement among "the experts" in the field about how people learn new systems, and the best that we seem to do is to model after learning processes we are already familiar with. In my paper I discuss a number of models that different researchers have formulated to show how people learn online systems.

Another conclusion was that when it comes to learning theory and CAI, there should be a matching of the CAI to the learning knowledges or skills. For example, tutorials and simulations are both designed to promote different skills or knowledges. Therefore, the type of skill or knowledge you need to learn impacts on the type of CAI you will be using.

I also found that there are a number of different types of CAI. Most researchers report three different types; but some report up to seven. In my paper I discuss the drill, the tutorial, and the simulation types in much more detail.

Last, I took a look at DTIC's CAI and concluded that there are a number of established CAI criteria that our design efforts should follow. I also concluded that we should be following some of the established, valid CAI design principles, and I'll talk a little bit about that when I go to my recommendations.

So, I put all my conclusions together and then I waited for inspiration to hit! I finally formulated the following recommendations. When it comes to learning online systems, it's very important for DTIC to: (1) monitor the research, and (2) borrow learning models to use at DTIC. We did develop our own model of how all of you learn the system with a lot of feedback from Jim DePersis and Laurie Lubsen, and also from user feedback during our testing stages of the tutorial.

I also recommended that when it comes to tutorials, the best kinds of learning they support are abstract concepts, concrete concepts, rules and principles, problem solving, and skill modeling. Again, you can refer to my paper for more detail.

Then I looked at DTIC's CAI and saw that there are a number of different areas we need to develop more carefully so that CAI is beneficial for our users:

- (1) Our lesson objectives should be clearly stated on the screen so you know what that lesson will cover.
- (2) We need to carefully define the target populations using CAI.

(3) Help screens (at the time I looked at our CAI, we didn't have help screens developed: since then we have developed a number of help screens and that area is being examined very carefully).

(4) We need to develop response escapes--this refers to commands you can use if you get into a lesson and you can't get out.

(5) We have to draw supplementary materials together and ensure that our CAI users have access to them when they're online--we refer to the DRIT and a number of different publications from DTIC as you're going through CAI

(6) We need to develop more comprehension questions so that we can test and see if you're learning from the CAI.

The Project leader for the CAI effort at DTIC is Richard Thornett. His phone number is (202) 274-7661 or Autovon 284-7661.

Are there any questions?

QUESTION: It's a guiding principle of research that there are very few, absolutely brand new, never-heard-of-before problems. I'd like to ask if you had an opportunity to compare the DTIC network and system of training with other governmental networks, such as NASA/RECON or the Department of Energy Oak Ridge interconnecting system. Were you able to visit, talk to, or compare--is DTIC ahead? Behind?

WITGES: My answer has to be no, I didn't. My research mainly looked into learning online systems. I am aware of what some of the other agencies are doing, I did not actually do a formal comparison of our system versus theirs. I don't know if we're good, better, best, or what!

QUESTION: Did you examine or do a comparison of tutorials between DTIC and commercial vendors?

WITGES: Again, I'm familiar with a number of different tutorials that different online vendors put out, and I've gone through a number of those, but I didn't do a comparison. When I came on board in 1985, the project was well underway. So I came in and essentially took a look at what was going on. But you're right, there are a number of commercial systems that are also doing training.

MODERATOR: Are there any questions on any of the four papers that have been presented? If anyone has suggestions for future papers that new interns could work on, we'd be glad to hear them.

Thank you very much for coming.

HOW TO PROMOTE DTIC'S PRODUCTS AND SERVICES TO YOUR USER COMMUNITY -

Linda McGinnis/Carol Jacobson/Marcia Hanna/Barbara Lesser - DTIC/Leona Laughlin - MIT/Sherril Hisaw - Hughes Aircraft

LINDA MCGINNIS Office of User Services

I want to welcome you to our session on how to promote DTIC's products and services to your user community. Our presentations are directed to intermediaries. However, if you're an end user, you'll also benefit from the session.

My name is Linda McGinnis, and I'm from DTIC's Office of User Services. I'll be highlighting promotional materials which are available from DTIC for your use in promoting our services to your users.

We have a number of speakers, including two guests from DTIC's user community, who will address other topics. They'll introduce themselves as we go along.

DTIC has a variety of materials which describe its products and services. We'd like you to evaluate the information needs of your users and to determine the promotional media most apt to tune them in to the DTIC products and services which will meet those needs. You can inquire about or request these materials from the Office of User Services. Our telephone number is 202-274-6434, or Autovon 284-6434.

DTIC's Handbook for Users of the Defense Technical Information Center (DLAH 4185.8) updates and replaces the User's Guide To DTIC Programs, Products, and Services which was last updated in July 1980. The handbook touches on all of DTIC's products and services. There is a section containing "how-to" sheets which step you through every action you need to take to accomplish key operations with DTIC, for example, registering for service with DTIC.

Other printed promotional materials produced by DTIC include a contributor handbook; green and white packets containing looseleaf sheets which describe our products/services, user community, etc.; a telephone index; letters from DTIC's Administrator on topics of interest to users; and a directory of DoD Information Analysis Centers. In addition, DTIC has scheduled facility tours for users and potential users. These take place the second Tuesday of every month. Registered users can borrow a briefing package from DTIC which consists of a narrative and accompanying vugraphs, and you can do it yourselves. This approach is most effective in your hands because as you brief you can relate our services to the needs of those individuals you're briefing. To request a tour or the briefing package, call the Office of User Services.

An overview of DTIC, both in a slide-tape and in a video format, is available for loan. The initial script for a new videotape has been prepared, but it will be a good while before the final product is available.

Finally, to encourage potential contributors to DTIC's databases, a module on the subject of security is being prepared. This will eventually be produced in several formats. It will become part of our briefing narratives; it will be used as handouts in conferences such as this one, and in meetings; and it will become part of the exhibit DTIC takes on the road.

Carol, we're ready to hear about CAB.

CAROL JACOBSON
Office of Information Systems and Technology

My name is Carol Jacobson and I'm from DTIC's Office of Information Systems and Technology. Like you, I have a special interest in promoting information products and services to my users. This afternoon I would like to take a few minutes to tell you about one of DTIC's special products, Current Awareness Bibliographies, or CAB.

Although CAB can be used by both intermediaries and end users, this presentation will emphasize the use of CAB by end users, that is, your users. I plan to address five issues: first, what CAB is and how it is similar to, and different from, demand bibliographies; second, when your users would want to use CAB; third, what the benefits of CAB are; fourth, how you can promote CAB to your users; and fifth, how to subscribe to CAB.

Since CAB and demand bibliographies are bibliographic products which reference technical reports, what are the differences and similarities between CAB and demand bibliographies?

o CAB is a recurring service to which a user subscribes; a demand bibliography is a one-time service which a user requests. If a user subscribes to CAB, he or she automatically receives a bibliography every 2 weeks. If a user orders a demand bibliography, he or she receives a one-time bibliography.

o CAB provides the user with a bibliography of newly-accessioned technical reports. It is produced in conjunction with the Technical Abstract Bulletin (DTIC's biweekly announcement medium for newly-accessioned technical reports) cycle. Demand bibliographies are historical by nature. They can cover the entire technical report file or they can be limited to a particular date range.

o CAB is based upon a customer profile established by DTIC Retrieval Analysis Branch staff (DTIC-HAR) in conjunction with you. The profile is stored in our computer and run every 2 weeks. A demand bibliography is based upon a custom-designed search. Since it is only run one time, it is not stored electronically. The custom search is designed by DTIC-HAR staff.

o Both CAB and demand bibliographies are provided by DTIC-HAR.

o CAB and demand bibliographies are also similar in that there are other products which can be used to complement them. Recurring Reports is a service which lists summaries from the management databases (Work Unit, Program Summary, and Independent Research and Development) and complements CAB. When you

establish a CAB, you might well want to establish Recurring Reports using the same profile. This is especially appropriate for subject-oriented CAB profiles. You would receive listings of the most recent technical reports and ongoing research in a particular area. Demand bibliographies from the technical report file are complemented by demand bibliographies from the management databases. The user would have a retrospective listing of technical reports and ongoing and completed research in a particular area.

- o Both CAB and demand bibliographies are free of charge.

Now that you know what CAB is, why or how would your users want to use it? As intermediaries, you can probably think of a number of occasions when your users would find CAB useful. A short list of possible uses follows.

- o Tracking reports published by or for one's agency. Such a CAB would help management keep track of the number and nature of technical reports published by, or for, your agency. Collectively, these could be used as input for your agency's quarterly, or annual, reports.

- o Following most recently published technical reports in a particular subject area. Tracking technical reports published under a particular contract or set of contracts--perhaps on which your users bid--or contracts let by a particular agency. Tracking technical reports published by a competitor. Such a CAB would keep users aware of areas of research in which the competitor is involved.

As you can see, there are many uses for CAB. There are also a number of benefits. The most important benefit of CAB is its ability to keep the user aware of current technical reports in a particular subject area. You can establish separate CABs on several topics for a given user or for a number of users. CAB profiles are easy to modify. You need only contact DTIC-HAR in writing or by telephone, and you can either cancel or modify a CAB.

Once a CAB is established, a user will automatically receive a bibliography every 2 weeks until the CAB profile is cancelled or the user fails to return the annual renewal notice.

CAB is a very convenient product for intermediaries. A requested-by line on the outside of the CAB allows it to be sent directly to the end user. This is very convenient for DTIC users who have established over 100 CABs for their users: they do not need to make distribution. CABs can be sent directly from the mailroom to the end user.

How can you promote this useful service to your users? One way to promote CAB is to use DTIC's CAB promotional brochures, which are free of charge and can be used to acquire a sample CAB. To request brochures, contact DTIC-HAR or me. My telephone number is 202-274-5367 or Autovon 284-5367.

Another way to promote CAB is to establish sample CABs for the departments within your agency. This can be done by looking at your agency's organizational chart and having a CAB prepared that matches the subject areas of interest to

the various departments. This is a quick and useful way to make your users aware of CAB. To request a sample CAB, call DTIC-HAR at 274-6867 or Autovon 284-6867. Be sure to specify that you are requesting a sample only.

You might want to design your own flyers or promotional brochures. If your agency has newsletters, you might want to write a short article about CAB. Feel free to use information from the CAB brochure to develop your promotional materials.

As you know, it is important for you to be aware of new projects and programs within your agency. When a new project or program is contemplated, you will want first to have a demand bibliography run on the technical report file and the management databases. If the program or project is initiated, you will want to suggest that a CAB be established. Now that you know what CAB is, how to use it, and how to promote it, you need to know how you can subscribe.

There are three ways to subscribe to CAB--in writing (ATTN: DTIC-HAR), by telephone (274-6867 or Autovon 284-6867), or by completing a DTIC Form 4, Information Request (or the new combined DTIC Form 64, Request for DTIC Database Products). Also, these forms can be obtained from DTIC-HAR or by calling DTIC's Registration and Services Section on 274-6871.

Mr. Thomas Jones, Ms. Jane Hatton, or Mr. Louis Williams from DTIC's Retrieval Analysis Branch (DTIC-HAR) will be happy to help you establish a CAB profile. They can also answer any questions which you might have concerning CAB.

MARCIA HANNA
Office of User Services

I'm Marcia Hanna of the Office of User Services. I will be giving a brief overview of the Recurring Reports service. I will do that mainly by comparing and contrasting Recurring Reports to demand searches and demand bibliographies, and Recurring Reports to Current Awareness Bibliographies (CAB).

First, let me remind you that Recurring Reports are produced from the Program Summary (PS), the Work Unit (WU), and the Independent R&D (IR&D) databases, that is, databases concerned with planned, ongoing, and proprietary research known as Management Information System (MIS) databases. Also, information in the IR&D database is company-owned--so it is available to DoD requesters only.

How does a Recurring Report resemble a demand management report? Both are prepared by the same DTIC department--DTIC's Retrieval Analysis Branch (DTIC-HAR). And both are free to the recipient.

On the other hand, while a demand management report is for one time only, a Recurring Report will continue to be sent to you at intervals you choose.

Another point of contrast is that a Recurring Report will cover only the new or modified summaries added during the time period you have selected. Demand management reports which result from demand searches of the MIS databases,

however, tend to cover greater time periods. They may cover (depending upon your search parameters) all records in a particular database and thus may encompass the entire historical file.

How does the Recurring Reports service compare and contrast with CAB service? There are similarities. Again, both are prepared by DTIC-HAR, and again, both are free to registered DTIC users. Both are based on interest profiles that the user develops with a DTIC analyst. But there are critical differences. CAB is concerned with the Technical Report (TR) database, that is, with completed research. In contrast, Recurring Reports focus on the MIS databases.

Recurring Reports include each summary which falls within your interest profile in its entirety. For example, from the WU database, you receive copies of the Research and Technology Work Unit Summary (DD Form 1498). With CAB, you get a bibliographic citation to each document, not the document itself. Also, CABs are synchronized with the Technical Abstract Bulletin (TAB) cycle and are sent out to you every 2 weeks. For Recurring Reports you can select the interval you wish--monthly, quarterly, semiannually, or annually.

Recurring Reports are valuable in that they will alert your user to where defense research is going. It's easy to have search profiles modified, and you can choose to receive them at intervals that suit you best.

In what particular situations would you want to set up a Recurring Report? When your users want to be alerted to new work in some particular subject area. If you are part of a large agency, Recurring Reports service is a good way to find out what is going on in other parts of your own agency. Perhaps you are aware of some other agency which is doing work in a particular subject area of interest and you'd like to track their efforts. You might want to know when DoD awards new projects to a competitor. Or, you may want to know about new work under a particular contract.

You can do a number of things to encourage your users to take advantage of the Recurring Reports service. For example, you can distribute brochures from DTIC which describe the service; you can establish samples of your own for people in your department to look at; and you can develop your own personalized promotional materials. If you do develop your own materials, we hope that you share your ideas with us and with other intermediaries.

There are some particularly good, appropriate times to encourage the use of Recurring Reports:

- o When your agency is considering work in a new area. You first request a demand search in that area. If, after seeing the results, your researchers decide to continue research, you set up a Recurring Reports profile with DTIC-HAR.

- o When one of your users indicates that he or she wants whatever is written on a certain subject. You suggest Recurring Reports to continue to make them aware of what is being done in that area.

- o When new personnel arrive at your agency.

BARBARA LESSER
Directorate of Database Services

Good afternoon. My name is Barbara Lesser and I am assigned to the Directorate of Database Services. Today I will be speaking to you about a new online search command (Search New Accessions (@SNA@)) which DTIC introduced in February 1985. This search command allows Defense RDT&E Online System (DROLS) users to limit a search of the Technical Report (TR) database to the latest 2-week cycle. In the past, a searcher could only do this by keying in all the AD ranges; this was tedious and time-consuming. Now, @SNA@ automatically limits the search for you.

How can you use this command to benefit your users? One way would be to provide a current awareness service similar to DTIC's CAB service. This service could be based on a profile set up for an individual, or on a group profile set up for an entire department.

Why provide your own current awareness service instead of relying upon DTIC's CAB? First of all, your product will be more timely because you will retrieve the information, print it, and hand it to your user. You and your users will not be dependent upon the U.S. mail service. Secondly, citations in CAB are arranged by AD number only and contain complete bibliographic information as well as an abstract, descriptors, and identifiers. If you supply this service, you can arrange the citations in a way that may be more useful to a particular user, and you can include as much or as little information as they want. Third, if you have a dedicated, classified terminal, classified citations can be provided to those users who request them. The CAB that DTIC produces contains unclassified citations to classified documents. Fourth, if you provide the current awareness service, users can work closely with you to refine their profiles to receive exactly what they want. Because you will deal with your users face-to-face, and not on the telephone or through the mail, misunderstandings will be minimized and changes can be made more quickly.

There are several things to consider before undertaking your own current awareness service.

- o If the organization you serve is large and you have a small staff, you probably should not attempt this service.
- o How much will this service cost in terms of staff time, as well as equipment and online costs?
- o Security must be taken into account because if you produce a classified current awareness bibliography, you must establish procedures to make certain that the person for whom it is intended is cleared to receive the information.
- o What quality product will you produce in regard to both its content and its appearance? For example, if the printer you have is not letter quality, will your users be satisfied with the product it produces?

What are some of the other ways you can use the @SNA@ command to benefit your users?

o To make users aware of DTIC's CAB program (in the event you can't provide your own current awareness service) by setting up a sample CAB. @SNA@ limits your search to 2 weeks, which is just what CAB does. (If you were to use the Search Technical Reports command (@STR@), you would get many more citations because you would be searching the entire database.)

o To acquaint your users with DTIC's TR database. You can use @SNA@ to produce sample lists of citations from the TR database. The number of citations produced via the @SNA@ command is easier to manage and to use as a sample than if the Search Technical Reports command is used. Your sample should include not only the results of a subject search, which most people are familiar with, but also examples of other searches such as an author, contract, or project number search. That way your users will see the different ways the database can be accessed.

The DROLS Search New Accessions command enables you to have access to DTIC's newest accessions in the fastest way possible. It also permits you to process and distribute this information in any way that you wish. We hope that you find it useful and use it often.

**LEONA LAUGHLIN
Massachusetts Institute of Technology
Lincoln Laboratory**

I'm Leona Laughlin; I'm a Document Specialist at MIT Lincoln Laboratory. When we first started our Current Awareness Bibliography (CAB) program, our main concern was to make it simple, and we've done just that. MIT Lincoln Laboratory, prior to November 1981, published a document accessions list which announced selected reports that were received automatically through military organizations and DoD-sponsored companies. We decided to rely on DTIC's CAB program when it became apparent that we were no longer receiving reports because of cutbacks in automatic distribution programs. Our decision to use CAB was affected by the following factors.

o CAB would provide timely announcements of new technical reports from DoD-sponsored companies and military organizations for the scientists and engineers at Lincoln Laboratory. The coverage of CAB included a much larger cross-section of reports from many more sources than we had been receiving in hard copy before.

o We were already participating in DTIC's Automatic Document Distribution (ADD) program, so reports listed in CAB would already be available in the most current ADD shipment.

o We would reduce our need for hard copy report shelving space by relying on our microfiche collection provided via the ADD program.

o We had acquired a Xerox 970 microfiche printing system for reproducing hard copy reports from 24x fiche on demand.

o Participation in the CAB program would free library personnel for other professional library functions by eliminating the cataloging, filing, circulating, and announcing of hard copy reports.

We contacted Louis Williams, who at that time was in charge of the CAB service at DTIC. Lou met with us to discuss the process of introducing the CAB service to the researchers at Lincoln Laboratory. After Lou Williams' visit, a follow-up letter was sent to William Thompson, DTIC Director of Database Services, informing him of our plans and requesting his help with this new project. I believe that the initial interaction with the staff at DTIC helped to ease our transition to the CAB service and improved our relationship with DTIC.

We were determined to make the changeover in the library system as painless as possible for our users. We sent out announcements explaining what CAB is, describing the coverage and services CAB provides. A copy of the Committee on Scientific and Technical Information (COSATI) indexing terms was attached to the announcement. The library users were asked to circle the keywords that were appropriate to their fields of interest and return the sheets to the library. Sample CAB bibliographies were available in the library and the users were encouraged to look these over and consult with the library staff to help with setting up their profiles.

The profiles were checked for errors, for possible problems in the profile selections, and for legibility of the users' names and room numbers. To make life easier for the staff at DTIC, we emphasized the subject choices by circling them in red. We made file copies of each profile request, and sent the first responses off to DTIC.

While waiting for the first CABs to arrive, we composed a letter explaining to the new CAB recipients what they would be receiving. We explained that their profiles could be changed, if so desired, but cautioned them that every CAB issue would be different and advised them to wait for a few months to get an overall picture before making revisions.

Once the researchers began getting their CAB bulletins, they were instructed to circle the AD numbers of any report that they were interested in receiving and to return the sheets to the library with their names and room numbers. Limited reports required a written need-to-know as well, to justify their requirement for the requested report.

To monitor the accuracy of the CAB profiles, we initially had the CABs sent to the library for review and subsequent distribution to the researchers. We checked each CAB against the original profile request. Any changes or corrections were returned to DTIC to update. We monitored the incoming CABs for approximately 1 year before turning the distribution over to our mailroom. We sent notices to the CAB recipients informing them that they would be receiving their CABs directly and asking them to contact DTIC for any revisions, cancellations, or problems. We also stated that if they could not solve their problems by this means, to call the library for help.

In looking back over the introduction to CAB at our laboratory, it is evident that it was a change for the best. The problems were small and easily worked out. We currently have 173 CAB profiles. I feel that CAB is here to stay at MIT Lincoln Laboratory.

SHERRIL HISAW
Hughes Aircraft

I'm Sherril Hisaw from Hughes Aircraft, El Segundo, CA. I have a completely different approach to getting customers in, and I'd like to discuss my psychology of searching.

First of all, I am not a library. There are no books, no journals, no customers 3 feet deep at the counter. In fact, I'm completely out of the traffic flow of information. You need a picnic lunch and two road maps to find me in the company.

My priority is marketing. We use the work unit and program summary databases--very little technical reports. I assist all of Radar Systems Group when it comes down to doing their classified searching, and then I go outside and I assist anybody else that needs help.

The next thing I want to tell you is that I'm spoiled rotten. I have a classified, dedicated terminal. After hearing all the horror stories on the dial-up, I thank my lucky stars.

I have created a very comfortable working atmosphere up in my little area. I think about the little fifth grader that went in the library to do his very first book report and there are these overwhelming reams of books, ceiling to floor; a librarian with a big stick says, "Shh, be quiet"; the card catalog is taller than he is; and he's scared to death to search. He has no idea where to start. Engineers aren't any different. When they're told to do a subject search they imagine in the back of their minds these walls and walls of books and groveling on the floor for some information.

Well, you've got to picture my room in your mind. It's 14' x 14', chocolate fur wallpaper over 6-pound density, 1-inch thick sound absorption board. The noise disappears. There are no high-speed printers in there that weld your teeth together by 2 o'clock. It's very, very quiet. The overhead lights are off. We have track lights down to the surfaces so there's no glare on the terminals, and there is my pleasing self smiling. This is very important. People get in the back of their minds that this is the place to go--it's warm; it's soft; I get what I want; I get out; nobody is around making lots of noise to change my flow of thought; and, this pleasing, grey-haired old lady will talk to me quietly and understand everything I say. That's very important--when your customers think of information, they think of you.

When we first started out, we had vugraphs, we hit top management meetings, we hit middle management meetings, we hit staff meetings. We even went over to the coffee pot and grabbed people and dragged them in for show-and-tell. But first of all, before you start this, make sure you know your system. Make sure you know your role codes and have them memorized. Have somebody drill you on

them, because there's nothing more of a turn-off than to have somebody sit there and watch you while you're quickly looking up the source code, or quickly looking up a role code. It turns them off every time.

One other thing I did is I went into the ongoing work units for Hughes Aircraft, picked my key investigators out, and printed out their work units. They love to see their name in print. I also looked up the Program Element (PE) and project number on their documents, went back into the terminal, picked up anything being done by a competitor funded under the same PE and project. Here's what you're doing; here's what Westinghouse is doing. And, do you know about Texas Instruments? They like to know what is going on in the same field of interest that they have right then. Don't crowd them with 20 or 50. Just a touch to get them interested. Then they come to you.

I also picked up a few that were completed and terminated under the same PE and project, and also pulled the technical reports that resulted so they could associate technical reports with work units. At that time we had program planning summaries; I pulled out the total objective in program planning. Here's your little part and here's the total problem the military wants solved. It's very important that they see the whole picture and what they're doing--how it fits into the whole file.

Now, my psychology of searching. I described my room. Also, introducing the file to the people is very difficult. They see three databases. "What is it going to do for me?" I use what I call the "selling-a-pink-mousetrap-to-the-Army" routine. I tell them that they're working in a laboratory and they're working with cheese and they need this special holder to hold the cheese. Boy, it works so good that somebody else might want that holder. Okay, well, how do they find out? They go into the work unit file under "mousetraps." Well, Texas Instruments has a blue one for \$75,000 funding. Westinghouse has a purple one; they have \$75,000. Make a note of the PE and the project number this work is being funded under. Next check the technical report file to make sure nobody has a pink one and it failed. So, they go to the technical report file and look for "mousetraps." Well, there was a lemon-colored one back during Korea, but it never got off the ground, so they're fine. They have a pink one and it's going to do beautifully. They go to the program summary file, find out who is sponsoring mousetraps--hey, this turkey has \$300,000 to play with. Subtract the \$150,000 that he gave to the other companies, and say, "Look what I have for you; I've got a pink one." They can understand that. They can understand the association between the three files, what's there, and how what they're building is going to fit into the system, and also which file they want to investigate for their problem.

One of the important things I find, also, is not just the managers, not just the researchers. Get those secretaries up to see you. They're the ones that have to "go-fer," and "go-fers" think library. They also think reports. Oh, it's at DTIC--let's write to DTIC. They don't associate you with DTIC, with the "go-fer" reports that they have to get, and if you can ace out any time in between, they'll learn where to come and get information for their supervisors.

Follow up on good searches. One comes out and it's a dandy, and it really fits the bill. Follow it up. Say, "Hey, I did a good job for you; do you have anybody in your department that doesn't know about me? Tell them what I did for you and send them up to see me."

If you have a really good search and you know it's good, and you saved the company money, get it in writing. If you're anything like we are, we have to justify our existence from year to year. If you saved \$75,000 here by eliminating an Independent Research and Development (IR&D) contract...if you saved \$10,000...if you saved \$5,000...if you saved one major marketeer 4 hours from groveling on that library floor by getting what he wanted in his hot little hand then...times \$60 an hour. You saved some money! It adds up. We did that at Hughes Aircraft, and I don't know if anybody knows about it, but we came up with \$1,800,000 in 1 year. We eliminated three IR&D projects that were planned.

Some more of my psychology on searching. Again, if you've ever worked with 2-year olds, their first word is "no." Similarly, don't ask your users if they want to go into the Work Unit database. Don't ask them if they want to look at work units. They won't know what you're talking about. Pick them up. ("Let's go pick up your toys.") That's what I do. I recall my search from the technical report file and say, "Now, let's see what's happening right now in industry? Look what I have for you." You get that thing up on the terminal and let them see what's happening. Let them see that there's a telephone number. Sure, they can't order anything, but it's there, and it's available, and they can telephone. Another way I use the work unit file is in connection with technical reports. Many times the statistics are there, the keywords are there, there's no abstract. Take that contract number and go over in the Work Unit database. See what his approach is. You won't have results, but you can see how he started his projects. You can see the progress. You can see who to call.

The reason why I use the Work Unit database so heavily, why I push it: if we don't use it, we're going to lose it. It's got to show some usage. If nobody uses that file, they're going to take it away from us just like they did the other one. They'll find some other use for that data space.

I always limit my searches. If you go into the Work Unit database with no limitations, you're going to get an overwhelming amount of material with. You don't want that. Limit the material to 05A, 05D--this is ongoing, right now. H and K are terminated, and completed. Now, sometimes you want terminated and completed. Especially if it's laboratory in-house work. The reasons why is that those turkeys don't write reports. They present them in journals; they present them in proceedings. The only way you're going to get it is to find it in the Work Unit file. There again, I limit by 23C and 23D. This is in-house material--again, terminated and completed. And you might want to limit it to the last 3 years. You can either limit it to in-house or not, because the contractors haven't had time to get those reports into the technical report file. You know where to go after them. They're right there.

That's just about it. If you follow all these rules, in about a year you're going to be beating off your people with a big stick. I've got them lined up like a hairdresser.

MCGINNIS: I want to thank both Leona and Sherril for joining us today. I know they put a lot of work into their presentations and they both did a very good job.

DTIC has given a good deal of thought to the subject of user feedback. It is valuable to us for a number of important reasons. Anything you have to say about us is pertinent. It might not always be polite, but it's pertinent. Whether it has to do with our operations, our personnel, or any aspect of our products and services. Your need for existing ones, for new ones, your uses of them, your successes through that use. We want and need to hear how the use of a product or service has saved you time and/or money. If you can quantify that for us, that would be great. Your feedback is valuable because it supports DTIC in our budget requests. It gives us the basis for planning, developing, prioritizing, targeting, and promoting products and services, and it assists us with the acquisition of information.

Since there are certain restrictions that are placed on us, regarding the conduct of surveys, for example, we appeal to you to be aggressive and give us a piece of your mind. We'll try to develop formats for you as we go along which will help you in documenting your thoughts about us and ideas for us, but don't wait. Write or call DTIC's Office of User Services. Our new symbol is DTIC-B (as in Benefit, your Benefit). The time you take to get in touch with us now will be well worth your while.

JACOBSON: We'd be willing to entertain any questions that you might have.

RICHARD SHELLMAN, IIT RESEARCH INSTITUTE, CHICAGO, IL: I have a question that I think is mostly for Carol and Marcia, but perhaps for the others, also. I'm the librarian at one of the IACs, so therefore, in a way, most of the other people in this room are my clients and they, in turn, have their clients. I've been sitting here asking myself how that makes it different for me? Well, one way I can think of right off is I very seldom meet my clients face-to-face. Besides that, are there other things that you could point out that I should be thinking about? I'm relatively new, and therefore am loaded with ignorance.

JACOBSON: One thing that Marcia and I would both suggest is the use of mass distribution channels, for example, the distribution of brochures or other flyers through mass mailings in your particular community of interest.

PANEL MEMBER: Perhaps you could identify key people in your user community who would be able to cooperate with you to establish a file of significant people and organizations. Are you trying to identify customers?

SHELLMAN: Yes.

PANEL MEMBER: One of the things we've done recently in terms of trying to identify end users in the robotics and artificial intelligence community is to go to the associations. Some associations are willing to give names, addresses, telephone numbers, that sort of thing. You can also go to the work unit file to identify contacts in a particular subject area. Another thing we did was to identify some magazines and journals in the area of artificial intelligence and robotics, and had short articles about DTIC's efforts published. We got some feedback that way. You'll find other people in the same subject area are also keeping lists, and we were able to identify additional names that way.

COMMENT: I was quite impressed with your talks. The only thing that bothers me is that the information that's in DTIC is 2 years old. You need some currency. Otherwise, it's not very useful.

HISAW: Fred Lewis and I are doing some active work now with the Army and the Air Force. We can't get the Navy to talk to us yet. I have been personally going through every Army work unit that was completed and terminated during the last 3 years. We're dividing it up by PE, projects. We're nailing it down to the actual monitoring headquarters. We are reading every work unit, checking the progress, double-checking anything we've got in the TR database. The things with no trailers, we're putting a dollar value and we're taking them back to the Commanders. We're doing that for the Army.

The Air Force is very impressed with what we're doing. They've asked us to start theirs as soon as we finish with the Army. There are a lot of work units that never actually get contracted for and those are the ones we're after. We're also working with all the material we find in the contracts listing that is not in the work unit file. We're pinning those down, too. We have been working on this for about 3 months. We've got another 3 months to go in the Army, and then we'll start on the Air Force.

JOYCE VAN BERKEL, SANDIA LABORATORIES, ALBUQUERQUE, NM: I have two comments. One is about user feedback. It would be very helpful if some sort of data collection form could be developed to help us find out from our users if we saved them money or time. I think Sherril's suggestion was very well taken. It is sometimes difficult to think of a way to formulate it so that it's easy to get data. I think the King studies have done a very good job. If in using those you can come up with some way that would help us get that information, we'd certainly be happy to pass it along to you. Our problem is getting it in the first place to justify our budgets, and we're in the same boat. We had one good example at our place of a person who was willing to quantify it for us--how much money we had saved the company. And we beat that one example to death. Every briefing we do, we use it--and we'd be happy to send it over to you as our one contribution! I think if we had a mechanism for gathering that information, we could do more for you and for ourselves.

COMMENT: This is a little connected to Leona Laughlin's presentation. I think the CAB program that you started sounds really wonderful. One unfortunate side effect was that in order to handle your 173 profiles, I believe you requested a change to have the "requested for" line on the top cover so that the mailroom could send these out directly. We people out in other places didn't know this was happening when we had developed our handling procedures for the old system, and suddenly our mailroom was taking the plastic envelope that had 40 or 50 profiles in it and mailing it to the first person on top, because that's the name they saw. No one from DTIC told us this was going to happen. No one asked us if we wanted it. Luckily, our users took the initiative to track us down, because it wasn't easy for them.

So I'd like to take this opportunity to ask DTIC personnel again, please don't ever make a change without at least telling us 1 or 2 weeks before. Doing a favor for one of us is very nice, but it slaps everybody else in the face. At least if we know it's coming, we can duck and be ready.

MARCIE STONE, PENTAGON LIBRARY, WASHINGTON, DC: One thing with the CABs that I just became aware of that may help some other folks is that if someone transfers from one agency to another, one library service to another, the CABs can be transferred. You don't have to start over again. The old CAB number will transfer to your account, or it will be transferred. It's helped me a great deal in the last couple of months with people who are coming in and out, and especially when officers are going from a school to a work situation or vice versa and want to continue the same research. You done good!

QUESTION: When you do the @SNA@ and you're doing it every 2 weeks or every month or whatever, how do you save that search or do you have to input each search each time?

LESSER: You don't have the save search capability. If you have a tape machine, you can save them on that.

COMMENT: I'd like to make a comment in line with what you've been talking about in this session--promotion of DTIC across the services. Several of the DoD IACs that DTIC funds are, in effect, services to DTIC users. Those IACs, as part of their contract obligation, are out there promoting themselves and running their own operations. So if you have an operation, if you're running a conference, if you're putting on a big operation within your company, and one of our DoD IACs is a going concern that is useful to you, get in touch with that IAC. They might have a film, a video cassette, a program, a set of vugraphs, they might even have a staff person coming your way who could drop in and give a promotion for the IAC to your people.

JACOBSON: Any other questions? Thank you.

One of your concerns related to the incomplete databases in our current system. Many groups share this interest, in addition to our internal staff. One group in particular may be able to assist with this problem area. That is the DoD Inspector General's Office whose recent correspondence to Under Secretary of Defense for Research and Engineering (USDRE) cited existence of chronic problems concerning the lack of submission of technical reports to DTIC and the probability of duplication and inefficiency as a result of organizations not searching the system prior to conducting research. They suggested several options, some of which, if fully implemented, are going to alleviate some of this problem.

A second concern of yours relates to the omission of telecommunications environmental changes that you felt were not reflected in the long-range plan. This topic has become an internal action item and the task was assigned in February 1985 to study and prepare an action plan addressing technical control problems. A formal report has been delayed because of personnel vacancies. Meanwhile, we are recruiting for a new office head and project manager, which will enable us to meet the new target date of January 1986.

The kinds of concerns that you expressed are much like those that concern the staff at DTIC on a continuing basis. From an external viewpoint, it may appear that DTIC is not aware of its problem areas, is not alert to the need for revisions, or is not conscious of its requirement to provide quality customer service. Believe me, that is not the case. There is a beehive of activity behind the scenes at DTIC attempting to revise systems and products, resolve problems, initiate development projects, adopt new ideas, and the like. To illustrate our interest and awareness, I have selected three topics as examples.

The first example relates to the promotion of innovation at DTIC. Bright ideas are generated by a number of sources, and DTIC has a positive attitude toward accepting ideas. In DTIC we have this circle of circles that includes the quality circle program, in which employees discuss and submit ideas as a group; the model installation and suggestion programs, in which employees submit ideas on an individual basis; the circle of users and user groups, which provide a good vehicle for you to use; the executive steering group; and individual employees who submit their concepts on an informal basis.

These ideas are screened, evaluated, and adopted whenever possible. However, approvals and implementation of these ideas depend on many factors, among which may be limited funds, lack of market evaluation, personnel constraints, and the like.

For the next example, DTIC operates programs for documenting and reporting planned and ongoing activities to ensure a management control system for related activities. The command project management program is one which has operated for a number of years. Projects are generated by suggestions from various user groups, recommendations from higher headquarters, and by internal decisions. Each project is documented according to standard format to include objectives, plan of action, milestone schedules, and financial and personnel resources

required. The project statements are prepared by offices of primary interest, coordinated with offices of corollary interest, and submitted to the budget office for approval of cost estimates. Then the project statements are subject to approval by the Deputy Administrator.

The third example, another management tool, is the Management By Objectives program (MBO) which has been in operation at DTIC for 3 years and contains records of major projects and many other planned and ongoing activities associated with DTIC's operations. Each directorate and staff office records MBO goals and milestones, along with schedules for each goal, the action officer's name, etc. MBO-related activities are monitored and reported at management briefings in the Center, and also reported to the top staff at DLA. The subject range within this program covers the spectrum of DTIC's mission responsibilities.

This brings us to some of the activities subsequent to last year's conference. In February, the executive staff and the long-range planning group held a 4-day seminar to discuss mid-range planning. At that time, four mid-range plans were presented. The subjects of those were: Enhance End User Access; Develop a Marketing Strategy; Expand Coverage of DTIC's Data Collections; and Security Aspects. The seminar culminated in the assignment of 40 action items with associated target dates for completion. These items included staff studies, action plans, system proposals, realignment and recruitment plans, time schedules and numerous other topics of current and near-term concern at DTIC.

In March the Administrator created the DTIC Steering Committee. This committee provides advice, evaluation, and assistance on projects and programs affecting DTIC's plans, utilization of resources, and mission accomplishments. The committee members are the executive staff of DTIC that has the final word concerning the Center's operations and activities, and will play a major role in DTIC's corporate planning.

At a May meeting, the decision was made to develop a tactical plan for the transition of current operational systems to an environment responsive to future needs of DoD scientific and technical information.

In subsequent months, a regulation for the DTIC planning system was drafted. The tactical plan format was finalized in June, and the tactical plan for transition into a modernized DTIC was drafted in September. The tactical plan supports a long-range plan goal titled, "DTIC Will be an Information-Oriented Organization Providing Wider Range of Information to DoD." The subgoal is titled, "Finalize DTIC's Transition from Product Orientation to Information Orientation." These tactical plans, the first in a series of plans, are each designed to support a long-range goal. The tactical plans establish objectives, strategies, and responsibilities. These plans are also entered into the formal mechanism for monitoring and reporting purposes in programs that I explained a while ago.

That particular tactical plan has six objectives:

1. Develop a support system to continue operations for the next 5 years.
2. Determine the DTIC organizational structure to support current and transitional period needs.
3. Establish a management information system to monitor and track efforts to improve and display performance.
4. Develop an environment within DTIC for responsiveness to future STI needs.
5. Develop a transitional plan for moving from objective 1 to objective 4.
6. Develop workforce excellence; attract, develop, challenge, and retain high-quality personnel.

In addition to objectives, the tactical plan includes background, current situation, justification for the effort, alternative approaches, description of planning methodology, obstacles to achievement, and strategies to overcome those obstacles.

We realize that any future planning for DTIC must include user needs and preferences. The bottom line is the provision of acceptable and useful information of the most advanced and sophisticated transfer systems. Thus, we will contact as many users as possible while we're carrying out these efforts, as well as give consideration to your ideas that are conveyed to us by other means.

In future corporate planning efforts, we intend to continue capitalizing on innovative ideas from internal resources, user groups, and external sources, and to emulate successful techniques of the information industry. The methodology used in long-range planning will be used, as well as other avenues of information gathering. The staff seminars on planning options will be continued. All of our proposed plans are subject to review and evaluation by the DTIC Steering Committee. The outcome of our planning efforts depends upon perception of need, knowledge of availability in the marketplace, and evaluation of compatibility.

Today, DTIC stands at the threshold of a dramatic shift to the latest, most advanced techniques and technologies for information processing and transfer of systems. We could say this is a repeat performance. We took a walk down memory lane that led us to another threshold. This was the late 50s and early 60s when DTIC was an adolescent known as ASTIA--Armed Services Technical Information Agency. In planning the transition from a manual to an automated system, it was discovered that the field was overgrown with weeds and thick underbrush. No one had ventured down that path prior to that time; thus, each step was like a walk across a mine field.

We are a great deal luckier today. Although we are again challenged by an enormous task, other explorers are investigating the area. Some have recorded their experiences and we found that others are eager to talk about their discoveries. So we can benefit from their experiences as we embark upon another long period of change and evolution.

Planning will be broken down into a three-phase approach. As Mr. Douglas quoted Peter Drucker yesterday, a good plan degenerates into a heck of a lot of work. We realize that we are at the point where a lot of work is going to have to be done. We know that the strategic plan was not intended to make any changes. It was to give us a vision of where we ought to go, and give some kind of control to planning at DTIC.

The tactical plans are going to allow us to focus on changes but they are not intended to change anything. The third phase is going to involve action plans that will develop a new system, and so on. That's the point at which we will see changes made at DTIC as a result of our planning efforts.

Another point to be made is that a lot of planning has been going on at DTIC, but it has not been controlled, and, for the most part, was never given the tag "planning." In fact, the projects that are performed in Mr. Douglas' area are the result of planning. He didn't just begin development projects 1 or 2 years ago. This had been going on for some time. But they dovetailed very well with current plans. So now we call it planning and we're going to recognize it as planning in the future. We're going to operate as planners in the future in a continuing mode on a full-time basis.

That concludes my comments and if any of you have any questions, I'll do my best to answer them. If I can't, I know for sure that Mr. Glynn has all the answers.

QUESTION: You say you had a draft of the tactical plan in September. Have you finished that already?

PARRIS: It has not been published yet, but we expect it to be published within a month.

QUESTION: After you publish it, is it going to be available to look at?

PARRIS: Yes, it will be available.

GLYNN: Our approach is to make the information available to all the users so they can understand some of the ideas or approaches that DTIC wishes to make in the future.

QUESTION: How is the tactical plan going to be disseminated? A special announcement indicating it's available, AD number assigned to it?

PARRIS: We don't plan now to assign an AD number to the tactical plan. The tactical plans are very, very live documents, and we will be working with those plans frequently within DTIC. Changes will be made frequently. It will be

available to anyone who wants to write in for a copy. It isn't classified and it isn't protected in any way, but I think we ought to be careful that we don't build any pitfalls for ourselves by spreading this information all over the place as if it were already set in concrete.

QUESTION: Could the members of the DROLS User Council be put on distribution for a copy of tactical plans as they are published?

PARRIS: I'll make a note and see if we can do that.

We're not just planning to make our job easier at DTIC. Any time we make our job easier we should be helping you to be more effective in your job. We think that's what it's all about.

Thank you very much.

FRANK SOBIESZCZYK

**Office of the Under Secretary of Defense for Research and Engineering
Research and Advanced Technology**

Thank you. I've been asked to talk about the policy aspects of export control. Many of you are really concerned about the procedural aspects--what it's going to mean to you in how you handle documents, how you handle information, how you go to conferences, how you review documents. I'm not going to go into that too much. Patricia Gaynor is going to speak next, and she'll describe the procedural changes that DTIC has had to make to accommodate the policy changes.

(Mr. Sobieszczyk's slides are shown at Appendix A.)

(Slide 1) - What I have been asked to do is give you the briefing I've been using to raise the general level of awareness of the problem in the information community. It's been estimated that most of the problem derives from a lack of awareness, and that much of the problem would disappear if people recognized the extent of the threat.

(Slide 2) - I work in the Office of the Secretary of Defense in the Office of the Under Secretary for Research and Engineering--specifically, in the Office of the Deputy Under Secretary for Research and Advanced Technology. One of the reasons I point this out is that many people don't know that there are two Under Secretaries reporting to the Secretary of Defense--the Under Secretary for Policy and the Under Secretary for R&E--and that there are split functions in OSD on the technology control issue. The Under Secretary for Policy has the responsibility for controlling military goods and services. The Research and Engineering side is more concerned with problems associated with export control on technical information and data.

(Slide 3) - I work for Dr. Leo Young, who has many functions. He manages the DoD basic research program, coordinates programs with universities, oversees the independent research and development and small business innovation research programs, as well as laboratory management. I spend most of my time working with the scientific and technical information program and in technology export control.

(Slide 4) - When we talk about export control, we're really talking about technology security--truly a bottom-line issue. Since World War II, it's been national policy not to try to match the Russians gun for gun and soldier for soldier. We just don't have the economic capability to do that. So we've depended on our technology to keep our military strong.

(Slide 5) - You can see from the chart that we are outgunned in virtually all major areas of combat equipment.

(Slide 6) - What we've tried to do is offset this through the use of advanced technology. Our dependence on technology is probably greater now than it's ever been in the past.

(Slide 7) - Keeping a system effective requires safeguarding its technology. One of the reasons this statement is important is because of the way we design weapons systems. Unlike the Russians, who keep their production lines open virtually all the time and make evolutionary changes in their weapons systems, we tend to design a weapon system, use it for a long time, and then design a completely new one. The cycle from system to system sometimes is very long--up to 30 years. For some systems, it's even longer.

(Slide 8) - So the earlier the system gets compromised, the more we have to spend to catch up and regain our technology lead.

(Slide 9) - Efforts to protect technology don't just benefit military systems. Protecting our technology also helps our economy which is supported in great measure by our technology.

(Slide 10) - There are two arguments concerning this issue. One argument essentially says: "We generated our lead through the free and open nature of our scientific and technical enterprise, and we should continue to run faster to maintain that lead." The counterargument from some people is that we've not been doing a very good job of protecting what we now have, and we need to increase security to make sure we maintain whatever advantages we have. The answer probably lies somewhere between these extremes. DoD actually uses both approaches to attack the problem. We are spending more in basic research. We are trying to speed the transition from research to development of weapon systems. We're also putting a lot of emphasis on scientific and technical information programs, because they provide a productivity lever for R&D programs. But I'm sure, with this audience, promoting the DoD Scientific and Technical Information Program would be preaching to the choir.

(Slide 11) - Instead, I'm going to spend most of my time talking about the threat. Why DoD is doing what it's doing to protect technical data.

(Slide 12) - Good cartoons generally contain a lot of truth. This one paraphrases Lenin's statement that the West will sell the Communists the rope used to hang them. This philosophy has been followed ever since, and it apparently has had considerable success.

(Slide 13) - How do the Soviets use the technology they acquire?

(Slide 14) - One of my favorite examples is a buoy that Boy Scouts found washed ashore in the state of Washington about 2 years ago. It was marked as a Soviet scientific buoy, but when we took it apart, we found that it contained acoustic sensors for listening to submarine movements. It was very disturbing to find that virtually all the circuitry in that sonobuoy was American-designed. It had microchips that were pin-for-pin copies of prototype chips that weren't yet released to the U.S. market.

(Slide 15) - The buoy was located off the coast of Washington, where our ballistic missile submarines travel in and out of Bremerton.

(Slide 16) - The buoy was sensitive enough to be able to identify individual submarines by their acoustic signatures.

(Slide 17) - Another example is the Soviets' RPG-19 anti-tank weapon, a virtual copy of our light anti-tank weapon, the LAW.

(Slide 18) - Some airplane examples: the C-141 first flew in 1963; 8 years later, the IL-76 came out--basically a copy.

(Slide 19) - A more graphic example is the YC-14. We first flew it in 1976; the Russians flew their version a year later. The YC-14 was designed to carry troops into and out of rugged airfields. It was designed with a high wing to keep dirt and debris out of the engines. The irony of this particular example is that Congress never funded production of the YC-14. Our only copy of that plane is sitting in the Smithsonian. The Russians have an operational fleet of them.

(Slide 20) - How do the Soviets benefit? Acquiring Western technology reduces their risk in doing R&D, and the costs involved are substantial. In the Technology Transfer Intelligence Committee's (TTIC) latest update on Soviet acquisition, you'll see some of the estimates that the Russians have used to measure the benefits obtained. Importing technology enhances their ability to do better R&D. One of the more significant issues is allowing them more rapid deployment of countermeasures to U.S. weapon systems. We've heard of situations where the Russians may have been able to field countermeasures before we've been able to field the system. In addition, technology acquisition could lead to Third World weapons proliferation problems as well.

(Slide 21) - The Soviets are very well organized to collect scientific and technical information. If you've had a chance to read the TTIC update, you've seen that they have a highly structured system of identifying requirements to their Military Industrial Commission, which approves the requirements, budgets for the collection (so many rubles are put aside for collecting each individual piece of technology), identifies who has the technology, and determines the most likely method of acquiring it. They assign the task to an intelligence agency or to their trade and technical communities.

It's probably safe to say that most government-supported visitors from the Soviet Union have some sort of collection requirement imposed upon them. Unlike the U.S., the Soviets require an exit visa. You cannot leave the Soviet Union without government permission. And the ability to leave a second time, we think, depends a great deal on what you've been able to collect during prior travels.

Most of the covert collection is done by the KGB and the GRU, Russia's military intelligence organizations. But the Soviet Academy of Sciences and trade organizations are also heavily involved. Acquisition is accomplished through both legal and illegal means.

(Slide 22) - Approximately 90 percent of the data collected is obtained legally.

(Slide 23) - Much information comes from open sources. The U.S. is the most open country in the world. I'm not saying that's bad. It's one of the reasons we are where we are today. But too much of a good thing can sometimes hurt. We want people to be aware of the possible detrimental effects of their activities as well as the positive benefits.

Information is available from numerous sources such as journals, conferences, exchanges, legal purchases, and technical documentation. I'll give you some specific examples of each.

(Slide 24) - The Soviet Union has probably the most centralized technical documentation organization in the world. Their technical libraries are centrally controlled by VINITI, the All Union Institute of Scientific and Technical Information. Over 10,000 libraries are involved, and over 35,000 periodicals are obtained from around the world. A popular anecdote in the intelligence community has the Soviets picking up a copy of Aviation Week at the newsstand in LaGuardia Airport and translating it on the way back to Moscow on the AEROFLOT flight. Their investment in terms of human resources is huge--well over 100,000 people.

(Slide 25) - The information that is collected goes into VNTIT, an information center like DTIC, but much larger. They collect a broader range of information, including design documents, computer programs, and conference and seminar proceedings--some of the things that DTIC doesn't typically collect. The benefits of being so highly centralized can be debated, however, because only government-sponsored access is allowed, and I suspect that the full potential of the collection could never be realized under such conditions.

(Slide 26) - Advertisements are sometimes excellent sources of technical data. This is an ad from a trade journal for a sonobuoy that a contractor was building for the Navy. It gives physical characteristics--weight, dimensions, transmitter power output, operating frequency, and transmitter frequency stability. If your job was to learn how to defeat this sonobuoy you might find this advertisement useful.

(Slide 27) - NASA, of course, has in their charter the responsibility for putting aeronautical information into the public domain. What we see here is a picture of the Soviets pulling a scale model of their space plane out of the Indian Ocean last summer. Those of you who are familiar with NASA's research programs will see the resemblance to some of the lifting body concepts that eventually were used in our space shuttle.

(Slide 28) - The National Technical Information Service (NTIS) in the Department of Commerce is the government's channel for information on scientific and technical successes to get into the public domain. You may have read Commerce Secretary Baldridge's claims that we may be giving away too much through NTIS. The Senior Interagency Group on Technology Transfer (SIG-TT) has a working group looking at that specific problem. DTIC is doing a lot better job than they were 5 years ago, but still has some problems. You can see where DIA thinks the problems are. Even in the Office of the Secretary of Defense we tell everybody what material is classified.

Are you aware that any document printed by GPO is sent by the Library of Congress throughout the world, including communist countries, unless you specifically ask them not to?

(Slide 29) - This conference led to a debacle in San Diego in 1982. It generated the ongoing discussion on how to go about handling release of DoD technology in meetings and publications. Individuals in the Office of the Under Secretary for Policy found out there were going to be Russians and other communists attending this particular conference, and that many of the presentations were to be given by defense contractors and defense employees. They went to San Diego and they asked if the authors had cleared the papers according to, admittedly, a relatively new DoD directive which was about 3 months old at the time. Of course, most authors hadn't complied, and withdrew their papers rather than argue the matter. This created quite a stir in the press at the time, and is still mentioned as a prime example of DoD interference in conferences.

(Slides 30 and 31) - What we see on the next two slides are some examples of the papers that were not presented. These papers are on military topics and are being presented by military people, in some cases. A later review indicated that DoD was not enforcing existing procedures put in place to prevent unwanted release of information. The systems to control release were in place, and didn't need to change much, but need stricter enforcement.

(Slide 32) - Another method of acquiring technology is through technical exchanges. This is one of my favorite topics because I participate in the Committee on Exchanges (COMEX) of the Technology Transfer Intelligence Committee. This committee provides intelligence opinions to the State Department, which determines whether or not to grant visas to technical visitors from communist countries. As you can see, the profile of incoming technicians is somewhat extreme. Most already have doctorate degrees and have been working in a production facility for 6 to 8 years. Most have backgrounds in science and engineering. Our exchangees typically study Russian culture and history, which, when you stop to think about it, is logical. I can't see sending people over to study lasers, because they're not going to get into the laboratories where lasers are being built. That's far from true for visitors coming to the U.S., however.

One of the vugraphs you see in this TTIC Acquisition Update deals with the targeting of universities. Universities are targeted for both military and general technology. About 40 percent of the collection requirements against universities are military, however. This is significant because the universities play a large part in the technical programs of the DoD.

(Slide 33) - Technology can be bought legally as well. This is a slide of a large floating drydock that the Japanese sold to the Soviet Union a few years ago, with the stipulation that it not be used for military purposes. They agreed.

(Slide 34) - This sale gave the Russians the capability to build an aircraft carrier much earlier than they could have done otherwise, because they lacked the port facilities to build anything that big.

(Slide 35) - We also lose information through databases. This is a very complicated slide, but I use it to make one point. Through IIASA, the International Institute of Applied Systems Analysis in Austria, VINITI, the Soviet's technical information institute, can connect to U.S. commercial databases. And they do. Once into TYMNET and Telenet, you may access any computer that's connected, either legally or otherwise.

That basically covers the legal means used by the Soviets to acquire military technology.

(Slide 36) - They are not averse to using illegal means--spying, electronic eavesdropping, smuggling, diversions--as well. I'll give you some examples.

(Slide 37) - It's not just the Soviet intelligence network we have to worry about. They work very closely with the other Warsaw Pact intelligence communities and share information. Some people believe we lose more to the other Bloc intelligence collectors than we do to the Soviets, because we don't see the Poles or the Hungarians to be as much of a threat as the Russians.

(Slide 38) - They use espionage to acquire technology.

(Slide 39) - One example: William H. Bell worked for Hughes Aircraft. He compromised all of the systems shown on the slide. The F-15 look down/shoot down radar probably was the most significant. The Russians are now fielding their first two models of fighter aircraft with this capability. For all this, Bell received a little over \$100,000. Estimates of the value of the technology that he gave away exceed a billion dollars. We're probably going to have to spend at least that much again to regain the lead in these technologies we once enjoyed.

(Slide 40) - William H. Bell is now serving 8 years in prison. He received this light sentence because he cooperated with the FBI to arrest his contact, Marian Zacharski, who was a Polish agent. You may have heard the name before because he was one of the three or four agents that were traded for several Western agents a few months ago in Berlin.

(Slide 41) - Electronic eavesdropping. When you use the telephone, it's possible that more people are listening than the person you're calling. The technical capability exists. And it's not just a problem with intelligence ships patrolling off our coasts.

(Slide 42) - Here we see a picture of the roof of the old Russian Embassy in downtown Washington. You can see it was pretty well crowded in by taller buildings all around, but in our wisdom we've allowed them to build a new embassy at the highest point in Washington.

(Slide 43) - Diversion--you may have read a year or so ago about the famous case of the VAX 11-782 that was being illegally diverted to the Soviet Union in two shipments.

(Slide 44) - One went legally to Norway, then to West Germany before being diverted to Moscow. Another went legally to South Africa before being diverted through Switzerland and Sweden. The latter shipment was intercepted in Sweden. The other likely made it all the way to Moscow.

(Slide 45) - They were shipped through a network that is run by Richard Mueller, who lives in East Germany. Mueller has established more than 65 companies in different countries around the world to handle diversions of information and goods.

(Slide 46) - Here we see a portion of the recovered shipment being offloaded at Andrews.

(Slide 47) - This example involved the seizure of microcircuit manufacturing equipment that was deliberately mislabeled. Many people think that the West has either legally or illegally provided the Soviet Union with enough microcircuit manufacturing capability to meet most of their military needs.

(Slide 48) - Some technology is literally carried to the Soviets. Here we see some millimeter wave test equipment that was to be loaded aboard an aircraft in checked baggage.

(Slide 49) - This example is rather old, but it points out the fact that outright theft is not beyond consideration. In the early 1970s an electronics trade show was held in Moscow. IBM showed what was then their new 360-65 series computer. Throughout the show, the Soviets made approaches to the IBM representatives, asking to purchase the equipment. They pointed out that the equipment is here already and the sale would save the cost of shipping it back. The IBM officials correctly stated that they couldn't sell the computer without an export license, and demurred. The night before the trade show ended the equipment disappeared.

(Slide 50) - A year or so later, the Soviets announced their new computer--the Soviet ES 1020. One of the biggest selling points for their new computer was that it was 100 percent IBM compatible. So compatible, in fact, that you could use the IBM maintenance manual to maintain it.

(Slide 51) - The Soviet Acquisition Program is real, but people are not aware of it. We believe that awareness of the problem will solve most of it because once you realize the consequences of your actions, you'll probably be a little bit more circumspect in handling militarily critical goods and information.

(Slide 52) - What is the U.S. doing to reduce the loss of military technology?

(Slide 53) - Several agencies are involved in the process. The President oversees the program, of course. The Department of Commerce and the Department of State regulate the export of goods and services. The Department of Commerce licenses export of dual-use goods, items that have both a commercial and a

military use. The Department of State approves exports of munitions, arms, and other military items. DoD provides input to both of these processes. The Customs Service watches for illegal shipments. The intelligence agencies provide information to identify the threats and evaluate our programs.

(Slide 54) - It doesn't make sense for the U.S. to try to control technology unilaterally because there are many high tech countries. DoD has been putting a lot of emphasis in strengthening and using COCOM, the Coordinating Committee, which is a nontreaty organization made up of all the NATO countries except Iceland and Spain, plus Japan. Spain has recently asked to join COCOM, however. The organization encompasses most of the high tech manufacturing capability in the Western world. Its secretariat is located in Paris. The U.S. meets with these trading partners and agrees on items that are to be embargoed to the Warsaw Pact and others.

(Slide 55) - Once those decisions are made, the items are put onto our control lists, of which there are two. Under the Export Administration Act, the Department of Commerce administers the Export Administration Regulations (EAR), which include the Commodity Control List (CCL) of dual-use items. A license from the Commerce Department is needed to export any of these items or the technology associated with those items.

The State Department regulates military items. Their regulations are called the ITAR, the International Traffic in Arms Regulations, which include a Munitions List. Export of goods on the Munitions List or the technology associated with those goods requires State Department approval. Violations of either law are subject to severe criminal penalties, including both jail terms and fines.

(Slide 56) - The Department of Defense's technology control program is outlined in the annual report that the Secretary makes to Congress. This document is probably the best reference if you want details about the DoD program in export control.

(Slide 57) - DoD 2040.2 is the directive that organizes DoD's export control efforts. It establishes an International Technology Transfer Panel, chaired by the Assistant Secretary of Defense for International Security Policy, Richard Perle. That panel meets whenever there is something that either of the two subpanels can't resolve: Subpanel A is chaired by Steven Bryen, who is the Deputy Under Secretary of Trade Security Policy, and it deals with the issues of exporting goods and services.

Subpanel B deals generally with information issues, such as prepublication review, visas, conferences, and whether or not foreign nationals may work on defense contracts, for example. Either subpanel may set up working groups.

(Slide 58) - It was one of these working groups that drafted DoD Directive 5230.25, which implements DoD's new authority to control unclassified technology with military application. The new authority remedied an inconsistency between the Freedom of Information Act (FOIA) and our export laws. Under FOIA, the

government must release technical data to a requester, whether he is an American or a citizen of any other country, unless the data fell within one of the nine specific exemptions in the law. Export controls are not included in those exemptions. Any data that is in the public domain may be exported without a government review. We found ourselves in a situation where people could request export-controlled technical data from DoD, and because filling that request put the information in the public domain, it could then be sent anywhere in the world without government approval.

The FY 84 Defense Authorization Act changed this situation. Congress gave DoD the authority to withhold unclassified technical data with military or space application from FOIA requests by making the data subject to the exemption which recognizes other laws that authorize withholding.

(Slide 59) - DoD Directive 5230.25 is entitled "Withholding of Unclassified and Technical Information." By giving DoD this withholding authority, Congress solved one problem but created another. The problem it created was to find some way to continue to exchange and work with data with the people who have a legitimate need for it, including our contractors, university researchers, and others who may want to commercialize the technology. We had to find some way to provide data without making it "publicly available." This was accomplished by establishing a certification process that permits controlled data to be released under terms of an agreement.

The authority Congress gave DoD was very broad. It set three basic criteria for determining which technical data will be subject to withholding. The data must be: (1) in DoD's possession or control; (2) have military or space application; and (3) must be export controlled. Under the export laws, everything is export controlled to some degree. You cannot export anything to the Soviet Union without government permission. Read literally, DoD might have authority to control all of its technical data. It doesn't make sense to do that, of course. So we limited our use of the authority to those items that are militarily critical.

(Slide 60) - To help make that determination we use a reference document known as the Military Critical Technologies List (MCTL). The slide shows the cover of the unclassified version of the MCTL, but if you are involved in the details of control and have the appropriate clearances, I advise you to use the classified version. It's a much more useful document because it relates technologies to applications, and provides the rationale for including items on the list. Both classified and unclassified versions are available from DTIC, and the unclassified version may be purchased from NTIS.

This new system permits access to technical data if there is a legitimate need for it. Legitimate need is defined very broadly. About the only time access to the technical data might be denied is if the requester is not a U.S. citizen or resident alien, or does not reside in the U.S., or if the intent to use the data is one that would result in putting it into the public domain--publishing, for example.

We've also instituted a new system of markings in DoD Directive 5230.24, "Distribution Markings on Technical Documents." Statements A through F, some of you may recall, are the same that DTIC used about 8 years ago. One new one has been added, Statement X--U.S. Government and private enterprises that are certified for access to export-controlled technical data. Patricia Gaynor will go into more detail on this aspect of the system.

That concludes my awareness briefing. Now that I've made you all aware of the problem, I'm going to give you a little test based on these three slides of space shuttles.

(Slides 61, 62, 63) - This is the first; this one the second; and this one the third. My question to you is: Which of the three were Soviet craft? I'll show them again. (Note: Most in audience identified at least one of the slides as Soviet.)

That was a trick question. They're all American. I don't have any unclassified slides of the Soviet shuttle, but it still would have been a tough test even if I did, because they are so alike. The key to solving this test is to notice that all three slides show the shuttle blasting off. This is something the Soviets have not yet accomplished.

(Slide 64) - One of the reasons they have not yet launched is because they may not have mastered the trick of keeping the ceramic heat tiles on the craft. If they send it up they may have a bit of trouble bringing it back without those heat tiles. The point of the test was to try to impress on you the potential significance of protecting what might seem to be a relatively simple technique.

Thank you for your time and attention.

HAROLD SMITH, GRUMMAN AIRCRAFT, BETHPAGE, NY: I have a question with regard to the implementation of 5230.25. The regulation indicates that there will not be release of unclassified export-controlled information relating to DoD data and so forth. I believe the regulation also states that as a result there is a listing of qualified U.S. contractors which was still not available up until a few weeks ago, as best I could find out. I was very pleased to see that we have the identification of this, and also the toll-free telephone number. We had an experience in our own corporation where an engineer went out to Wright-Patterson AFB and went through the proper office to request three RFPs. The individual in control of that particular area first asked "Are you registered with DLSC?" Unfortunately, when you have a large corporation, it's difficult to get the word out to everybody that this is now a new requirement. But yes, we are registered. We have been registered since the early part of the year. The individual, though, I don't think understood or knew that he had to--or could--check with Battle Creek, Michigan. In turn, he handed the engineer a blank 2345 and said "go back and register." Fortunately, I'm the contact point in registration in my own corporation, and several people in the contracts area, RFP area, and other areas are aware of this. They have copies of the registration form. I was able to solve this relatively easily by TWXing out a certified copy of the form to Wright-Patterson AFB. But there was at least a 3- or 4-day delay in getting an RFP. On our contractor side of the house, if you're starting to talk 2- or 3-, or 5-, or 6-day delays, what is the sense of making the RFP available because that cuts a week off our time to reply.

SOBIESZCZYK: The problem is not unique. I've had to deal with several of these over the past few months. In an ideal world, we would have communicated to all of our contractors and all of our people who handle technical data how to do things. Unfortunately, we are a big bureaucracy, too. Each of the Services under our documentation system has to write its own implementing regulation. They've all done that. Now, the word sometimes is slow getting down to the field. I'm going to have to apologize for that. The only saving grace right now is that there's really not yet a lot of technical data that is being controlled under the system. Unfortunately, some of the data that will be covered is the new technical data that we're going to use for new RFPs. We're not going back to mark the old technical data in the repositories, however.

PATRICIA GAYNOR
Special Assistant
Office of the Administrator

Good morning. I do know a lot more about export control than I ever wanted to know after all these months. You'll notice, Frank got to give the flashy part of this presentation with all the fancy slides. I get to talk about the nuts and bolts. I'm not quite sure what that says.

There will be some overlapping in our presentations for transition purposes, although it's not that we haven't done this before. Frank's already explained to you DoD's policy on export control of technical data that discloses a critical technology with military or space application. He also described some examples of the results of our past lack of adequate controls. He pointed out this Soviet Acquisition of Military Significant Western Technology. We were requested by the Office of the Deputy Under Secretary for Policy to send a copy to all of our contractor users. Barely was it out the door when we got calls for extra copies. So we talked to the people at the Pentagon and they agreed that we could put it into our system. It will take a couple of weeks, but it will be going into the system as an unclassified, unlimited (U2) document.

Incidentally, Frank mentioned the Russians translating Aviation Week on the plane to Russia. In the September 30, 1985, issue of Aviation Week and Space Technology there is an article that discusses and reviews this particular document, so I'm sure the Russians know it by now. They probably don't even have to wait for the AD number.

The technical data that we're discussing here is data that does not meet the criteria for security classification. Until now, none of our distribution limitations could effectively exempt the data from public disclosure under the Freedom of Information Act (FOIA). Public Law 9894 now authorizes DoD to control access to this unclassified export-controlled technical data, and it exempts such data from FOIA requests. These are the three pieces of paper that we are mainly dealing with--the law, plus the implementing DoD regulations:

Title 10, U.S. Code, Section 140c, as added by Public Law 9894,
"Department of Defense Authorization Act, 1984," Section 1217,
September 24, 1983

DoD Directive 5230.25, November 6, 1984, Withholding of
Unclassified Technical Data from Public Disclosure

DoD Directive 5230.24, November 20, 1984, Distribution
Statements on Technical Documents

I want to repeat for emphasis that the new legislation and directives that implement it do not establish new or additional export-control rules. They're the same old export-control rules, but this is just the way of controlling it, particularly with respect to technical data, and gives a little more attention to keeping it out of the public domain.

As I said, they provide for withholding of unclassified export-controlled technical data from release to the public domain. But at the same time, they establish the means for qualified U.S. contractors to gain access to this data. A qualified U.S. contractor is an individual or enterprise that has certified with the Defense Logistics Services Center (DLSC) by submitting an Export Controlled DoD Technical Data Agreement, DD Form 2345. I believe you're all familiar with this form and the self-certification process, so I'm not going to go into the details of that unless people have some questions.

An important thing for our users to recognize is that the provisions of these rules are not limited to the technical reports in DoD's collection. You may need to have a certification for access to export-controlled technical data in order to get specifications to bid on an RFP. You may need it to get technical manuals from some of the publications and forms centers that the military run. So DTIC is sort of a drop in the bucket in all of this. It is much broader than just the technical reports that we have at DTIC.

We've had some unique problems in weaving these new rules into our existing automated systems. The validation software that we use is extremely complex. It is also very old and very fragile. It would have required a great deal of time on the part of highly-skilled senior-level computer programmers to make the required changes in our system to do a selective validation. There is a severe shortage of these high caliber people in DTIC in our computer shop, and a number of other high-priority tasks are absorbing their time. So instead we have made a simpler change--simpler to us, and we thought it would be simpler for you. To do it this way, we have required all of our non-government users to certify with DLSC. Those who do not certify with DLSC will get only U2 technical reports and bibliographies to U2 technical reports. You can still be in the ADD program, but you'll only get U2 documents. You can still be in the CAB program, but you'll only get citations to U2 documents. You will not get limited documents and classified data or reports; you will not get TAB; you will not have access to the work unit system; you cannot have an online terminal.

Now, we're surprised and somewhat dismayed, a little bit puzzled, and not a little frustrated at how slow the users have been in submitting their approved certifications to DTIC. We sent our first letter out in February announcing the certification process. In April, we sent out a letter telling our contractor users that they would have to certify or face having the cut-back in the service that I just described. We have approximately 1,950 contractor (industrial/

academic) users registered with us, and only about 25 percent have complied since April. As of 27 September, 366 of those people who are TAB recipients have not certified. There has been some improvement in the past couple of weeks; we've had a flurry of activity because we sent out a couple of letters urging people to get on track. The online users have had a number of warnings. It's been on the online system information file. Sherril Hisaw put a very clever little cartoon in the online users newsletter. There have also been any number of other ways--we put an extra sheet in TAB telling the people that if they didn't get registered, they could lose TAB. We also took a hint from Sherril Hisaw and have come up with a little postcard that we hope to get out this week to all the people who have not certified warning them that time has run out. So we've tried every way we could to bring this to people's attention, and we can only presume they haven't registered because they still haven't gotten the word.

The other side of the problem is that since we have not yet implemented the changes, we are sitting on over 500 reports that fall under the purview of these new regulations. We can't put these into the system until we make the changes on the output side. We've had at least one unhappy source calling us saying, "How come my document is not in the system?" So we have reached the point where we just cannot do this indefinitely, and we are now planning to implement the changes on 8 November. This may sound arbitrary, but 8 November begins the first TAB cycle for the 1986 TABs. By making it that date, the users who will henceforth be excluded from receiving TAB for noncertification will still be able to get all of the 1985 TABs and they also will be able to get the 1985 annual indexes. So, unless we get the certifications in in time to process them into the system by 8 November, you who have not certified may face a cut-back in your service.

These are the distribution statements authorized for technical documents by DoD Directive 5230.24:

- A Public Release; Unlimited Distribution
- B U.S. Government Agencies Only
- C U.S. Government Agencies and Their Contractors
- D DoD and DoD Contractors
- E DoD Only
- F Only as Directed by DoD Controlling Office or Higher DoD Authority
- X U.S. Government Agencies and Private Individuals or Enterprises Eligible to Obtain Export-Controlled Technical Data

After 8 November, you'll begin to see citations on documents with the distribution statement X in bibliographies, on DROLS, and in 1986 TABs. You won't see this in the 1985 TABs because there are none in there. Distribution statement X was established as a subset of the A distribution statement. In other words, the only reason for limiting documents with the X statement is that they don't meet the reasons for assigning any of the other distribution statements, but they do contain data that is export controlled. All of DTIC's contractor users are eligible to be certified with DLSC. If you are a DTIC-registered user, you can get an X document. I mention that because we're not going to start serving people who are not registered with DTIC. We're still dealing with the same closed body of certified users, if you will. There will be other technical data from other sources that also will have to have these distribution statements, and X will be one of them.

X is not the only marking for something that's export controlled. The export-control warning can also be applied to documents that have distribution statements B, C, D, E, and F. You'll be able to recognize export control in any of these distribution limitations in the printed bibliographies and in TAB by the words "export control" that will be printed directly under the report classification. In DROLS, there'll be a page banner that says "export control" for citations for which it is applicable. Paper copies of the reports will have the export control warning statement stamped or printed on the front of the document. For the microfiche documents, we have changed the header so that you can read the words "export control" or a contraction thereof in the eye-readable portion.

Let me again emphasize that the DoDD 5230.25 applies only to unclassified export-controlled technical data. Classified documents, as I said, can be export-controlled. In fact, they are implicitly export-controlled, but their dissemination is governed by security regulations, not by DoDD 5230.25. They can carry the export-control warning statement; and, when the document reaches the point of being declassified, if the export control warning statement applies, then it does fall under DoDD 5230.25, but not while it is classified. Then your criteria for release or nonrelease is governed completely by security regulations.

I hope this is not too detailed, but I'd like to give those of you who are DROLS users an idea of how this is going to look in the system. Forgive me for giving you data fields, but in field 22 we'll include words that will tell you if a document is export controlled. Even if it's not an X limitation, we will include words to that effect so you can recognize it. There will also be a searchable term "export control" in field 25. I am going to prepare a brief written guide for all of these recognition features and get it out to you in the mail soon so that you'll be able to know where and what to look for, and how you can know if it's export controlled.

As I said, we asked all of our non-government users to send us a copy of their approved certification forms. We are posting their certification numbers in our master user file, and, come the cut-off date of 8 November, any user without a certification number in the file will be transferred to a specific

user type that gets only the U2 technical report services. We're working with DLSC out at Battle Creek to have them prepare a tape file for us. Every time they publish a qualified U.S. contractor list, we want them to give us a tape that we can bounce against our master file to be sure that we're still in sync. The DLSC list is the bible, and we have to be sure that we don't stray from it. Certification with DLSC is good for 5 years. Their publication is quarterly. DTIC's Dissemination Authority List (DAL) is published every other month. Because of printing lead times--different times when either their certification or our registration will run out--and inconsistencies in cut-off dates for the publications themselves, we simply cannot rely on an entry in the DAL to reflect whether a DLSC certification is still valid. Rather than misleading people or giving them a false sense of confidence, at the moment we do not plan to reflect the DLSC certification in the DAL.

I think Frank mentioned this booklet called Control of Unclassified Technical Data with Military or Space Application. This really is a rather comprehensive explanation of all these export control rules. They don't get into DTIC's procedural changes, but it's a very good booklet. The one thing it doesn't discuss in too great detail concerns whether contractors who legitimately get export control data can release it to somebody else. The answer, of course, is yes. You may disseminate it for purposes consistent with the certification without getting specific prior permission. I say qualified contractors who receive the export control technical data may disseminate it, and of course, there will be government agencies who are getting material from DTIC who will probably ask the same question, "What do I have to do in terms of may I or may I not disseminate it?" You can release it just as we do, by assuring that the receiving contractor or subcontractor is certified with DLSC and that the data requested is within the scope of the certified legitimate business purpose.

QUESTION: How do we do that?

GAYNOR: You can ascertain whether they are registered in several ways. You can refer to the DLSC-certified U.S. contractor list, which is a 48:1 COM publication that comes out quarterly. It shows the certification number, agency name, the individual who is authorized to receive the export-controlled technical data for the company, address, phone number, and a brief statement of the nature of their business. Government organizations can order this certified contractor list from:

Commander
Defense Logistics Services Center
ATTN: DLSC-WP
Federal Center
Battle Creek, MI 49017-3084
Telephone: Commercial: 616-962-6511, extension 6663
 Autovon: 369-6663
 FTS: 372-6663

Request must include complete shipping address, publication title, number of copies desired and fund citation, if applicable. Contact DLSC-WP (above) to obtain price per set.

Non-government organizations can order the list from:

Commander
Defense Logistics Services Center
ATTN: DLSC-WX
Federal Center
Battle Creek, MI 49017-3084
Telephone: Commercial: 616-962-6511, extension 6757

Request must include complete shipping address, publication title, number of copies desired with check or money order made payable to The Treasurer of the United States. Contact DLSC-WX (above) to obtain price per set.

I have not included the price information because at the time I put the ordering information together, DLSC was not sure what their charges would be. I doubt though that it will be very expensive.

Another way that you can find out if a requester is eligible is to ask the requester to show you a copy of his approved certification form. The problem there is that, as time goes on, there is the possibility that people may be decertified--their certification may expire or it may be pulled for cause. A list of revoked certifications will be distributed by DLSC. So in looking at an approved certification form, unless it's very recently issued, you may need to take a look at the list of revoked enterprises.

You can also call DLSC on a toll-free number, 800-DLA-DLSC, to determine if a person is currently certified.

QUESTION: Can we get on distribution for the list?

GAYNOR: Yes.

If you want to release an export-controlled document to anybody who is not authorized, according to the directive, you have to seek authority from the controlling DoD office. There is a question though, because if we're talking about export control, even the controlling office may have to get a license to export it if the person who asks for it is not certified. So it's worth it to be certified if you're entitled to be.

DoDD 5230.25 gives some additional details on how to handle denials. If an organization requests technical data that's export controlled and they're denied, they have appeal rights. Likewise a contractor, who has legitimately obtained export-controlled technical data and does request permission to release it to someone else who doesn't have a certification, has appeal rights if they're denied permission to release it. It does allow the widest distribution of the data. People cannot just, on a whim, hang onto it. I think the fear that a lot of scientific communities have is that DoD will use this to squirrel stuff away. That is not the intention.

The new procedures, including the distribution limitations that Frank mentioned, are not really all bad. As he pointed out, just a short while back there were basically only two statements--A and B, public release and government only. Then in October 1983 a memo from Secretary Weinberger reinstated the previous six distribution statements that we had used some years before. When the new DoDD 5230.24 came out in November 1984 the distribution statement X was added.

**DODD 5230.24 DISTRIBUTION STATEMENT USAGE
CALENDAR YEAR 84 VERSUS FIRST, SECOND & THIRD QUARTERS CALENDAR YEAR 85**

SUMMARY OF ACCESS AVAILABILITY

<u>STATEMENT</u>	<u>NUMBER OF DOCUMENTS</u>		<u>PERCENTAGE OF TOTAL</u>	
	<u>CY 84</u>	<u>CY 85 TO DATE</u>	<u>CY 84</u>	<u>CY 85 TO DATE</u>
GENERAL PUBLIC (A)	13,567	11,184	41.10	54.72
U.S. GOVERNMENT				
CONTRACTORS (A+C)	20,519	15,009	62.17	73.43
DOD CONTRACTORS (A+C+D)	21,996	15,876	66.64	77.68
RELEASE TO CONTRACTORS				
ONLY AS AUTHORIZED BY CONTROLLING DOD OFFICE				
(B+E+F)	11,011	4,562	33.36	22.32

Above are statistics that I put together to show you what seems to be happening now that we have a new set of distribution statements. What I'm showing you here is a contrast of what happened in 1984 as opposed to the first 3 calendar months of 1985. So don't let the numbers distract you. What this shows is that if you were in the general public category, you could get 41.1 percent of what DTIC accessioned in calendar year 1984, but in 1985 you could get 54.73 percent of what we accessioned. I'll be interested to see what happens when the fourth quarter data gets packed into it. I think you'll find that more documents will be more readily available to you because, whereas before they had to say all or nothing, now they can say, okay, let the government contractors have it.

DTIC's been given another charter regarding dissemination of technical reports to the general public. Right now the reports that come to DTIC with distribution statement A on them are sent to NTIS. From time to time, we have questioned statements and contacted the contributing organization to suggest that they might take a second look. But now we've been instructed by USDRE to routinely screen the statement A documents. This is not unrelated to Secretary Baldridge's recently-publicized concerns about what DoD is giving to NTIS. And NTIS may wind up having mixed feelings about this screening process. The intention is to keep reports from inadvertently getting into the public domain through inappropriate release to NTIS. There is a group at DTIC working out the details for a way to do this without slowing up announcement of reports or otherwise inconveniencing the contributing organizations. Research documents in budget category 6.1--research--will automatically be excluded from the screening, as will research in budget category 6.2--exploratory development--performed at universities.

We haven't run all of our proposals for the new procedures through the gamut of approvals, including Mr. Molholm, but I can tell you generally what we're proposing.

The documents that seem to be mismarked as A, based on our review looking at the Military Critical Technology List and having some people in DTIC trained to detect what should or should not go, will be processed into the system with a temporary marking of X and a notation--a sort of cover sheet, if you will--that says the statement is under review. At the same time, we will go back to the controlling organization, tell them what our view is on this, give them the reasons why we think it should be marked differently, and suggest that they review the statement in light of our comments and consider changing it. Now, if the contributing organization concludes that it should stay as an A document, an unlimited document, then we will remove the temporary statement and notations, send the report to NTIS, and that is it. The contributing organization would have the final word. The controlling organization may, in fact, just agree without assessment. They may even come back and make it tighter and say, oh, I should have made that "government only." So there are several things that may happen as a result of our proposal to a controlling organization that they review its marking. The response they give us will be controlling. In other words, DTIC is not changing it.

As I said, our first criterion for screening reports will be budget category. We'll be primarily concerned about research that has military applications--no apparent commercial use. And we'll also get into the dual-use items. Some field/group combinations may prove to be automatically excludable from the screening process. The more things we can determine which will automatically make reports fall outside of any military critical significance, the easier it will be for us and the faster the documents will get into the system.

We have no idea of the number of documents we might be talking about in the screening process. We can't even get a good fix on how many we'll have to screen, much less how many will be returned or will be proposed to the controlling office for review.

Another thing the screening process will do for all of us is to give the controlling organizations the advantage of having some feedback on the way that they are assigning distribution limitations. There's no intention to give DTIC the authority or responsibility of marking documents for the controlling organizations. But since DTIC is the central repository for DoD R&D reports, it's considered to be the ideal point to take a last look before releasing them for general public consumption.

We haven't pinned down a date when we can start the screening, and we will keep you informed as we firm up the procedures and get approval for our proposals.

To return for a moment to the certification process, we really don't welcome the prospect of having to reject requests for documents. If the other 1,600-plus contractor users don't get their certifications in, we face being

deluged with rejects when they come in to request documents that they'll no longer be eligible to get. It's more work for us to handle the rejects. Obviously, it's more aggravation to our users, and we don't want that to happen either. We'd be glad to hear any ideas you have to urge the cooperation of the uncertified users.

Now I guess it's question time.

SHERRIL HISAW, HUGHES AIRCRAFT, LOS ANGELES, CA: A lot has been said about what you people do, but nobody has told us slaves handling the recording process what documentation to keep at the company?

GAYNOR: None. DoD does not require that you keep any documentation of your dissemination of these unclassified, export-controlled technical documents. If you choose to establish some kind of a system, that's perfectly all right, but none is required.

HISAW: May I get that in writing for my Security Department?

GAYNOR: Certainly. Mr. Sobieszczyk will be glad to give it to you.

COMMENT: For everyone who doesn't know where the ITAR (International Traffic in Arms Regulations) is listed, it's Title 41CFR. Go to federal regulations. The U.S. Munitions List is 399.1 within Title 41CFR. The Controlled Commodities List, otherwise known as the CCL, is in Title 15CFR. For anybody who has to look that up, that'll save you a lot of time.

HAROLD SMITH, GRUMMAN, BETHPAGE, NY: I have several questions, specifically addressing the nonregistration of DTIC users for this particular system. It's been brought to my attention by several contractors that the libraries have not necessarily been the focal point in their organizations for registration. They elected to have their contracts department or another division within their organization register with DLSC. When the library, in turn, went to register with DLSC they were informed that because it was the same division and the same mailing address, DLSC would not allow the dual registration. Now, in your regulations, you're requiring that for the contractor to be eligible to be certified with DTIC to receive export-controlled information, the name and address must agree (which generally is the library). That company may be registered but you're not allowing that registration and therefore restricting data.

GAYNOR: Initially, the person in DLA headquarters who was running this certification for all of DLA stipulated that since it is an institutional certification, unless there was a geographic separation, they should only have one certification. Well, it wasn't very long before we realized this was causing a problem for our DTIC people. I've had many phone calls on this. I have talked to Mr. Joe McLennahan at DLSC and he understands the situation and is accepting more than one certification from a company.

To the opposite extreme, somebody sent in 70 certifications, one for every named person in the company. That's an extreme that's been a little difficult because it is the personal name that is most likely to change, and therefore you have an extremely dynamic database. I know for a fact that DLSC has been permitting more than one certification in a company, and I have advised several people to do that. If you're still having problems with DLSC, then talk to Mr. Joe McLennahan and I'm sure he'll resolve it for you.

Let me give you some good news in all of this. The people in the Pentagon who wrote this original regulation are considering changing the requirement to have a personal name as the data recipient. They're considering making it an organizational position, with the provision that the company which signs the agreement stipulates that they will ensure that the person in that position will always be one who meets the requirements, i.e., a U.S. citizen, is located in the United States, and so forth.

ARMY USE OF DTIC. Jack Kolb, Army Materiel Command/Robert Hubbard, Presearch, Inc./Kathleen Zaccardo, Presearch, Inc./Zaida Thompson, Consolidated Translation Survey/Allan Kuhn, DTIC

JACK KOLB
Army Materiel Command

For several years, most of you have had the experience that we in the Army have of questioning the productivity of our inputs to DTIC. Frequently the General Accounting Office (GAO) and Inspector Generals (IGs) check on us and find that there's a lot of R&D work performed that never finds its way as an end-product document into DTIC. As a consequence, the assumption is that we have less than optimum productivity because one cannot retrieve from DTIC or through DTIC evidence of accomplished R&D. So we undertook contracts to judiciously look at a good sample of the Army laboratories. Twenty-five (25) of the 35 laboratories in the Army were covered. We looked at what they are doing in detail to assure that they are using DTIC to the optimum, as well as inputting to DTIC all the appropriate R&D work.

During this past year we again had GAO and IG auditors, both of which have come back and reminded us that DoD is not doing an adequate job of filing references to accomplished research work into DTIC. So, as a result, we are tightening the noose a bit and trying to see to it that we do squeeze all of the productivity we can by way of interaction with DTIC.

We sent a letter out to all Army laboratory directors in September that effectively indicated what I've just expressed. It had some requirements specifically spelled out, some of which I wanted to share with you.

o We asked them to name a point of contact at each laboratory responsible for assuring that documentation is properly done--we didn't say a librarian or a technical information officer because we wanted the director of the laboratory to be sensitized to the need to do that.

o We asked them to assure that a search of the DTIC databases was being properly performed before undertaking research, and before undertaking contracts for research. Evidence of that search is to be made a part of the R&D file so that we could go back and audit the file and determine that the search was properly done and what the significance of the research was.

o We also asked them to tell us the method that they would be using at the laboratory to monitor this activity. We included this requirement because we consider that the laboratories operate their information processes autonomously. They are at liberty to do much of it autonomously, even though there are many regulations that do limit some of them. We will consider these methods in coming up with a universal policy that comes from the laboratories--recognizing, of course, that all R&D is not necessarily vested just in the laboratories.

This process is ongoing. We've received most of the answers, but we haven't collated and generated an end product. As soon as we do, you will all be able to access it through DTIC.

I am a very strong proponent of DTIC. If there are any problems with DTIC, I consider they're probably generated as much by the users and the suppliers to DTIC as they are by DTIC itself. There is a significant contribution to the R&D process by this DTIC documentation, whether it be hard copy, bibliographic reference, some other institutionalized method of reference to the accomplished R&D. Therefore, I'm suggesting that you flourish the flow of that information. Get out in your laboratories. See what they're doing. Get that information documented and get it into DTIC--even if it's only bibliographic reference--so that we can share the information.

Next, of course, is to do what you can to reveal cost benefits. That doesn't necessarily mean dollars. It could be manpower, it could be cost avoidance, but at least dig in and find your own justifications for cost benefit and tout those to your management. That's what we're doing.

We do have within the Army--and this may be DoD-wide--a new initiative to reduce the acquisition time and the R&D development time from what it is today, which is above 10 years, down to 4 years. I have a very strong interest and belief that we can do that only with judicious application of the efforts of everyone in this room. Information is indelibly related to reducing acquisition and R&D productivity time. All along the way, in the steps from birth to death of a project, information plays a very strong part.

We have with us today the principal investigator and his supporting people who developed this database of information which will be published. The contractor has tremendous experience in the area of intellectual property, as well as intelligence work with the government and specifically with the Army. The work will be presented by the principal investigator, Bob Hubbard. Of all the contractors I've dealt with in my 30 years with the Defense Department, I have never had a contractor as supportive and communicative as these people. They come to us constantly to be sure they're on track, to be sure we're cognizant of their accomplishments, to be sure they're doing the right thing and that the end product will be productive. They're going to tell you things they're learning about the Army, but I'm suggesting that everything they tell you will apply to your own organization as well.

**ROBERT HUBBARD
Presearch, Incorporated**

Thank you very much for the kind words, Jack. We're really pleased and enthusiastic to be here because we've not only done a study, but there's somebody out there who's going to listen to what we have. You may not agree with us, but at least we're getting a chance to present our findings. I think we'll have a couple of things that may stir a little conversation and discussion, and I hope it's of interest to you. Before I get started I'd like to introduce Ms. Kathleen Zaccardo. Kathleen has done, probably, 92 percent of the work on this study.

The other person I'd like to introduce is Ms. Zaida Thompson, who is from the Foreign Broadcast Information Service (FBIS). When I finish, she's going to talk a little bit about the FBIS Consolidated Translation Survey. I was

interested in having her here because I found that a lot of people in the R&D world aren't aware of the existence of the Consolidated Translation Survey, which has been more known in the intelligence community. One of my ulterior motives is to try and facilitate information exchange between the scientific and technical intelligence and R&D communities.

I'd also like to recommend the intern paper written by Ms. Randy Bixby. It includes some interesting information and some statistics that are in the same general area as our presentation.

Some of the things we've been involved with at Presearch, Inc. are shown on Chart 1. For 20-some years we've been involved primarily with the Navy, and the last 10 years we've gotten quite a bit into information systems--both analyses and software database development, and some work with hardware. One of the things that we have been involved in is development of the MATRIS system. Our people in California worked with the DTIC San Diego office on that project. As you get down to the bottom of the chart you'll see a couple of references to our experience with the intelligence community.

I would like to emphasize that what I have to say has not been approved or disapproved officially by anybody. So if you don't like what we say, you shoot at Robert Hubbard and Kathleen Zaccardo.

We are going to talk about Army R&D use of DTIC resources and services. So all you people who aren't in R&D organizations and have been wondering who's going to talk about your use of DTIC, you're off the hook. We're not going to talk about how CAA or TRADOC or HQDA uses DTIC--just the Army R&D agencies.

I'm going to start out and tell you what you already know--the use of information is really important. The people we need to sell and market to are the people in the command and directorate chain, because they're the people who have control of budgets and allocate resources in the user community. We found in the Army--and we feel this holds true in the other Services--that users can do a lot to enhance the use of DTIC. In order to get resources from the command chain, we need to convince those people that we have something of value to them. You're not going to buy a new automobile or a new personal computer unless someone convinces you it's worthwhile to you. Otherwise, you're not going to cough up \$3,000, or \$10,000, or \$20,000.

The objectives of this briefing are:

- o To provide Army perceptions of the value of DTIC information resources and services.
- o To identify ways in which the Army can more effectively exploit and contribute to DTIC.
- o To highlight the importance of the DTIC technical report collection as a source of translations of foreign scientific and technical literature.
- o To introduce the Consolidated Translation Survey (CTS).



PRESEARCH INCORPORATED

- PROVIDES ENGINEERING, INFORMATION SYSTEMS DESIGN AND DEVELOPMENT, INFORMATION SYSTEMS PLANNING, ANALYTICAL SUPPORT FOR DoD ELEMENTS
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 - STUDY OF PROCESSING OF OPEN SOURCE INFORMATION FOR USE BY S&T INTELLIGENCE ANALYSTS
 - MATRIS DEVELOPMENT
 - DESIGN AND IMPLEMENTATION OF AUTOMATED INTELLIGENCE DATA SYSTEMS FOR THE ARMY INTELLIGENCE AND THREAT ANALYSIS CENTER
 - INFORMATION SYSTEMS PLANNING FOR HQDA AND AMC ODCSI
 - PREPARATION OF GUIDES FOR AMC FOREIGN INTELLIGENCE OFFICES AND R&D MANAGERS ON USE OF INTELLIGENCE

To meet these objectives, we're going to discuss the Army-sponsored studies related to the use and support of DTIC by the Army R&D community, present the findings and recommendations of these studies, and discuss CTS.

The first question a lot of people who have been involved with DTIC for a long time may have, is why in the world have another study of DTIC? There have been a few studies done and here's a representative list.

- o 1965/66 - DoD User Needs Study, Phases I and II
- o 1975 - Especially DDC: Users Look at the DoD Information Transfer Process
- o 1976 - DDC 10-Year Requirements and Planning Study (Auerbach Study)
- o 1978 - A Critical Study of the DoD Technical Information Management Program--Direction for Tomorrow (OUSDRE)
- o 1980 - Improvement of Access to DoD S&T Information (IDA)
- o 1983 - The Use and Value of DTIC Information Center Products and Services (King Study)
- o 1984 - DTIC 2000: A Corporate Plan for the Future

What can Presearch come in and do for the world that hasn't been done by a number of very reputable people who have spent a lot of time and energy studying DTIC? What did these earlier studies find out? These are some of the points that came out of past study findings.

- o Scientific and technical information is important.
- o There ought to be high-level information tsars with lots of clout.
- o DTIC is a unique source of technical information.
- o DTIC services save dollars and increase productivity by helping to prevent duplication of effort; providing a way to identify people and organizations involved in specific fields of interest; and maintaining information on state-of-the-art.
- o DTIC needs more money for personnel and equipment.
- o DoD R&D organizations should submit more documents to the DTIC collections.

Let's go on to the next point. Why do an Army study? Well, we've got a couple of reasons:

- o Past studies don't tell Army R&D commanders, managers, and staff officers what DTIC does for them and how they can obtain increased return from DTIC resources and services.

o To make decisions about resources and support for the Army scientific and technical information program, managers need to know how many Army scientists and engineers use DTIC information, what benefits Army R&D realizes by using DTIC information, and what can the Army do to exploit and support DTIC more effectively.

The study scope was as follows:

o The study was conducted to develop recommendations for the Army, not for OSD, DTIC, or the other Services.

o The study depended on a limited number of interviews and an extensive questionnaire inquiry of Army R&D scientists and engineers.

o The study focused on the Army R&D laboratories and centers; project/product managers were not surveyed nor were test and evaluation activities.

I want to emphasize that we're not egotistic enough to give recommendations to DTIC about what they ought to do. Our view is that the availability and existence of DTIC resources is a given; our question is "What can the Army do to better use those resources?" Any information from the briefing that may be useful to DTIC is a by-product of our study effort.

The last point in the study scope mentions that the study focused on the Army R&D laboratories and centers. We didn't talk to test and evaluation activities or project and product managers.

I'd like to give you a little information about Army R&D. Here are a few basic facts and figures:

o The Army has 35 officially designated major laboratories and centers.

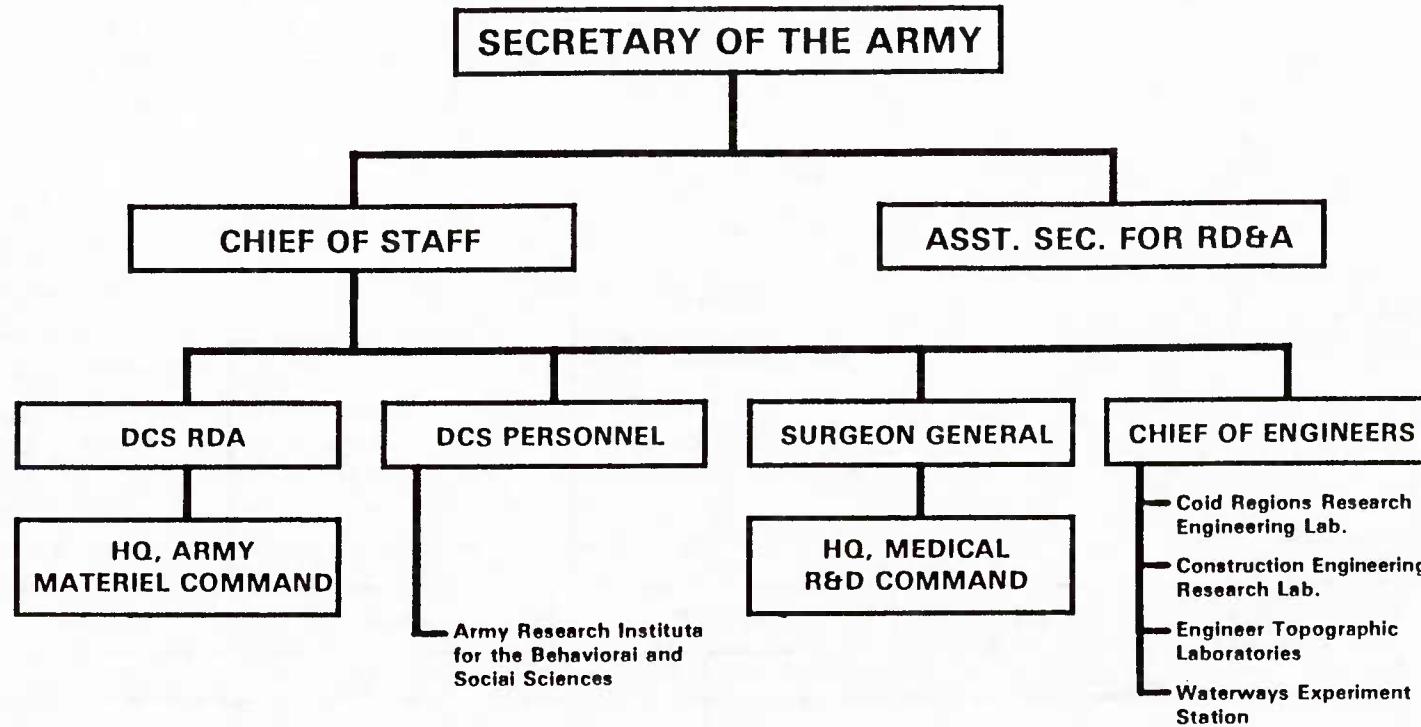
o There are approximately 10,000 bench-level scientists and engineers.

o The Army has an annual R&D budget of \$1.5 to \$2.0 billion.

Chart 2 shows the basic organization for Army R&D. Under the Chief of Staff, there are four of the principal staff agencies that are directly involved in management of the R&D program. The Deputy Chief of Staff for Research, Development, Acquisition manages the Headquarters, Army Materiel Command (AMC) R&D activity. Chart 3 shows that AMC has some 20 R&D laboratories and centers in it. The Deputy Chief of Staff for Personnel manages the Army Research Institute for the Behavioral and Social Sciences. Chart 4 shows the nine

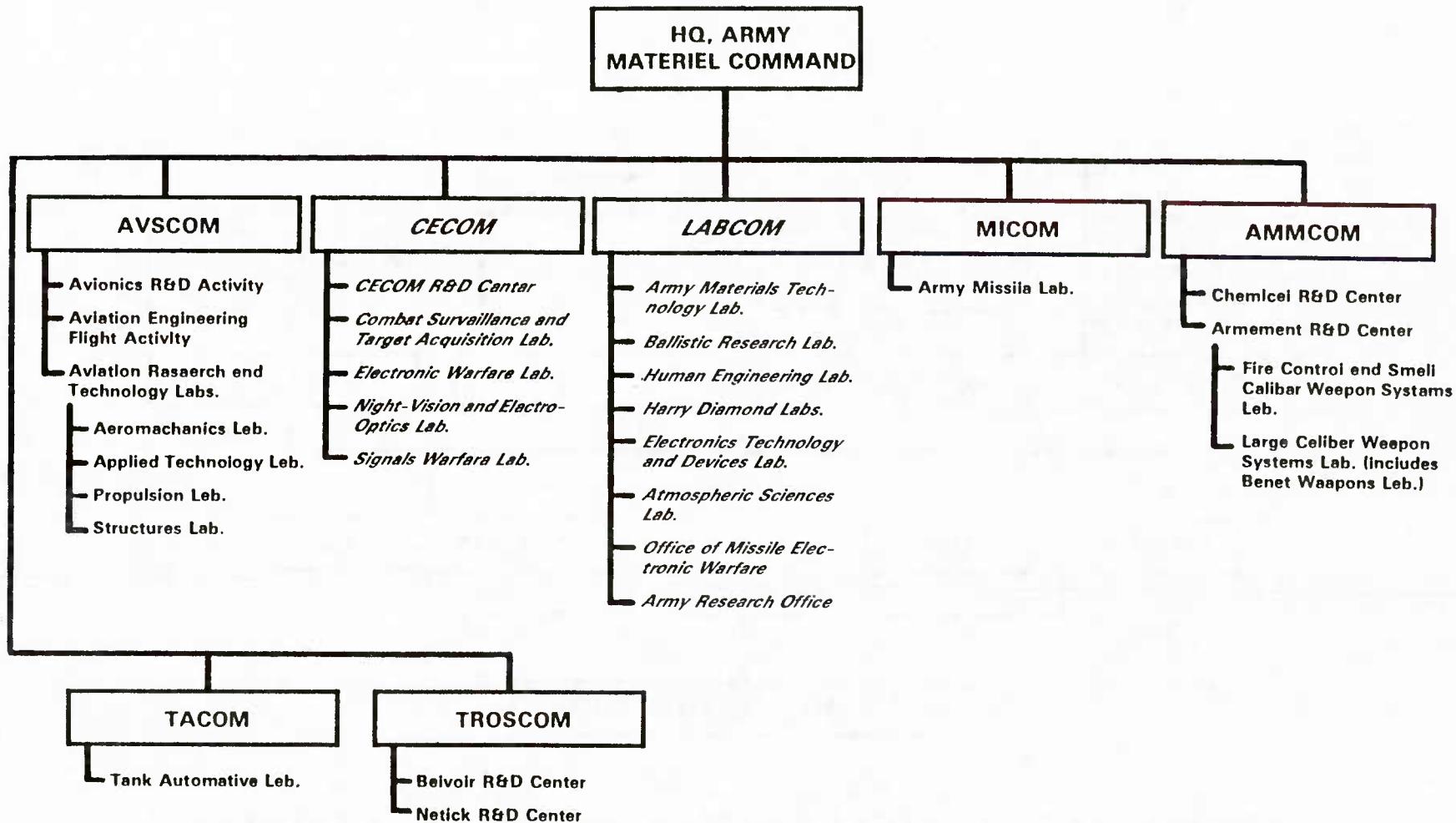


ARMY ORGANIZATION FOR R&D





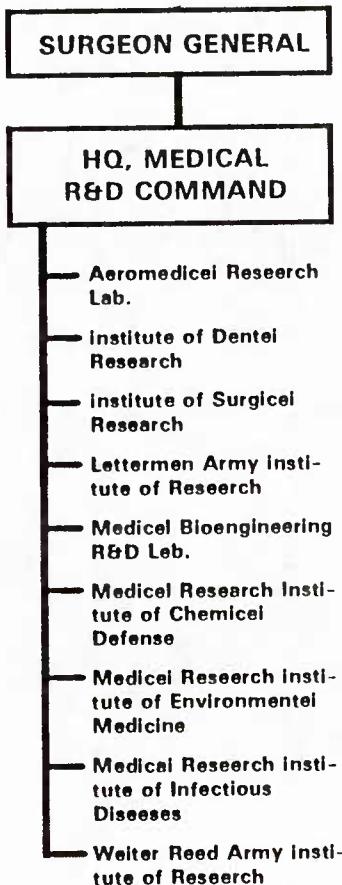
ARMY MATERIEL COMMAND ORGANIZATION FOR R&D



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ARMY MEDICAL R&D COMMAND ORGANIZATION



research laboratories and institutes around the country which are managed by the Army Medical R&D Command, under the Army Surgeon General. The Army Chief of Engineers manages four engineer laboratories directly, including the Cold Regions Research Engineering Laboratory, the Construction Engineering Research Laboratory, the Engineer Topographic Laboratories, and the Waterways Experiment Station down in Mississippi.

Our study methodology was simple. In step one--basic research--we did some homework. We studied DTIC resources, capabilities, and limitations; we reviewed DoD and Army literature about STIP and DTIC; and we interviewed selected technical library personnel and R&D scientists and engineers.

In step two we sent out questionnaires to 25 technical libraries. We also sent questionnaires to about 8,600 scientists and engineers in 29 laboratories. I might mention that the discrepancy between the number of libraries and number of laboratories is because some libraries support more than one laboratory. Our plan was to select about 250 of the 8,600 scientists and engineers who were knowledgeable DTIC users and ask what DTIC was doing for them.

Step three, obviously, was to prepare a study report (which will be submitted to the DTIC technical reports database).

Eighty-four (84) percent of the technical libraries and 47 percent of the scientists and engineers surveyed responded to our questionnaire--they represented 25 laboratories. We sent out 247 follow-on questionnaires and got 175 back.

I'd like to tell you about our problem areas as well as our successes. The first problem area--dependence on mail distribution--was discussed earlier in the conference (some people were saying they don't get their DTIC passwords through the mail). We had some people who came back and said they never received the survey material--so if I ever run another survey, I'm going to make weekly phone calls to ask if the intended recipients got their questionnaires, did they fill out their questionnaires, and have they returned them yet.

We had hoped to get 6,000 or 7,000 responses from scientists and engineers. For one reason or another, we didn't get that many. However, we do feel that the 3,200 we did get is about 2,900 more than anybody else has got. Remember that this is from a small portion of the overall DTIC user community, the Army R&D community.

Then we ran into the last problem. Many scientists and engineers really don't know how to estimate what they're getting in terms of time or money, but this isn't a new finding.

So, how do we assess the success of the study? We think we achieved most of our study objectives. We think we collected the most complete representation of scientist and engineer perceptions about DTIC use and value that's been done to date. We have identified specific cases of benefits that have been realized by use of DTIC information. We have obtained some estimates of time and dollar saving. And, we have identified at least six specific actions which we think the Army R&D community can take to enhance its use of DTIC resources and its support for the operation of DTIC.

You've heard all about the methodology. Now you can judge how it turned out. We have divided our results into two categories. One category is observations, which are for information only and do not lead to specific recommendations. I will cover these observations and then we'll go on to findings which suggested specific recommendations.

There is nothing really new about our first observation--Army scientists and engineers recognize that DTIC is a unique source of information. A lot of the information in the technical report and work unit summary databases is not available anywhere else. The next point is that DTIC helps the Army attain DoD scientific and technical information program objectives, including avoiding duplication of effort and facilitating transfer of technology throughout the DoD R&D community, and to some extent in the scientific and technical intelligence community.

Army scientists and engineers, for the most part, do recognize DTIC and value it. The survey results showed that 75 percent of our respondents are aware of DTIC, that 65 percent of the total number use DTIC resources, and that 47 percent of the users value DTIC information highly. They say it's of significant importance to their work.

The next observation is that use of DTIC information saves time and money. Of the 175 people that we sent detailed questionnaires to, 113 gave us estimates of the amount of time saved on their projects. The total amount of time saved by these 113 people, according to their estimates, was over 10 manyears of effort. If you want to restate that, it means DTIC increased their productivity 9 percent. We had 36 respondents who estimated direct money savings associated with their use of DTIC information. Those 36 people gave us estimates that totalled \$500,000. Now, how you want to generalize this to the whole Army R&D community is up to you. The total Army R&D in-house community is somewhere around 10,000 to 11,000 bench-level scientists and engineers and first-line supervisors. So if 36 of them saved \$500,000, how much did 11,000 save? I don't think statistics apply here, but with a few calculations we can make a reasonable estimate that DTIC resources are saving the Army R&D segment of the DTIC user community in the realm of \$40 to \$50 million a year, and that is a sort of common sense extrapolation of this information.

Now, it's testimonial time. I'd like to share some of the responses we got about use of DTIC information. This first one is from the Natick R&D Laboratories. The person who responded said:

"Our use of DTIC saved us 26 weeks and \$27,000 in the last year. Our directorate completed a vulnerability study of airdrop aircraft. The information obtained (from DTIC) from studies and reports of other nations and services were invaluable. In some cases we found studies that had been completed on work we planned to do. It saved us from reinventing the wheel."

Another one, from the Ballistics Research Laboratory, said:

"Saved 8 weeks and \$6,000. I was required to do a literature review of rifle test reports to determine why rifle performance is degraded. Much of the data of interest came from DTIC sources. Some of the reports were from the '50s and '60s and the authors had since left the government so that the DTIC reports provided the institutional memory. We also turned up some forgotten reports on rifle war games that proved very useful to our studies."

I'm trying to show you a variety of responses--not everybody saved the world by using DTIC information. This one is also from the Ballistics Research Laboratory:

"Saved 2 weeks' time. My current work involves, among other things, studies of involvement of nitrosamines involved in RDX decomposition. DTIC information on Russian work not otherwise available in English translation...has been very helpful in understanding the decomposition chemistry of these nitrosamines."

This one is from the Night Vision and Electro-Optics Laboratory:

"Saved 14 weeks and \$200,000. DTIC's value to my work can be summed up by its two principal benefits: (1) exchange of information between Services; (2) the superior quality of the information contained in many of the reports. Due to the classified nature of my work, information exchange is difficult if not impossible. Research thrives upon technology transfer; without DTIC I would have no other listing of classified papers in my field. My current research on laser countermeasures provided several DTIC articles...that were extremely pertinent. Without these articles I would be working in a vacuum. DTIC articles provide information unavailable from any other source. DTIC...papers are an exceptional tool for my holographic research. Information is presented in these papers that I have never seen anywhere else."

The final user comment is not directly related to a project, but a scientist's and engineer's rather literary response.

"DTIC is the daily newspaper and the historian of DoD-related research. Its products and services are unique. There is no other way to find out what is going on and what has gone on throughout all of DoD. The contribution in this regard is immeasurable because the product is essential (technical communication) and because there is no alternative source."

I have a lot more quotes, and we are publishing most of them in our report if you're interested in reading more. We tried to include input from as many different laboratories as we could from the detailed survey.

The next observation I have won't surprise anybody. Army input to DTIC collections is vital. And it's more vital to the Army than anybody else because what Ballistics Research Laboratory (BRL) or any of the other Army laboratories put into DTIC is what they're most likely to want to pull back out of it.

Chart 5 shows you Army input to the DTIC technical report database from 1975 through 1984. The bullseye on the right represents the input to date in 1985--some 5,500 technical reports. These reports include information from the R&D laboratories and centers, which have averaged about 30 percent of the input over the years. (These numbers represent the percent of total input over the 10 years.) Other organizations put in about 45 percent. These include test and evaluation agencies, the Army War College, the Army Command and Staff College, the Judge Advocate General, a number of engineering districts, the Army Concepts Analysis Agency, other Army study agencies, and so on.

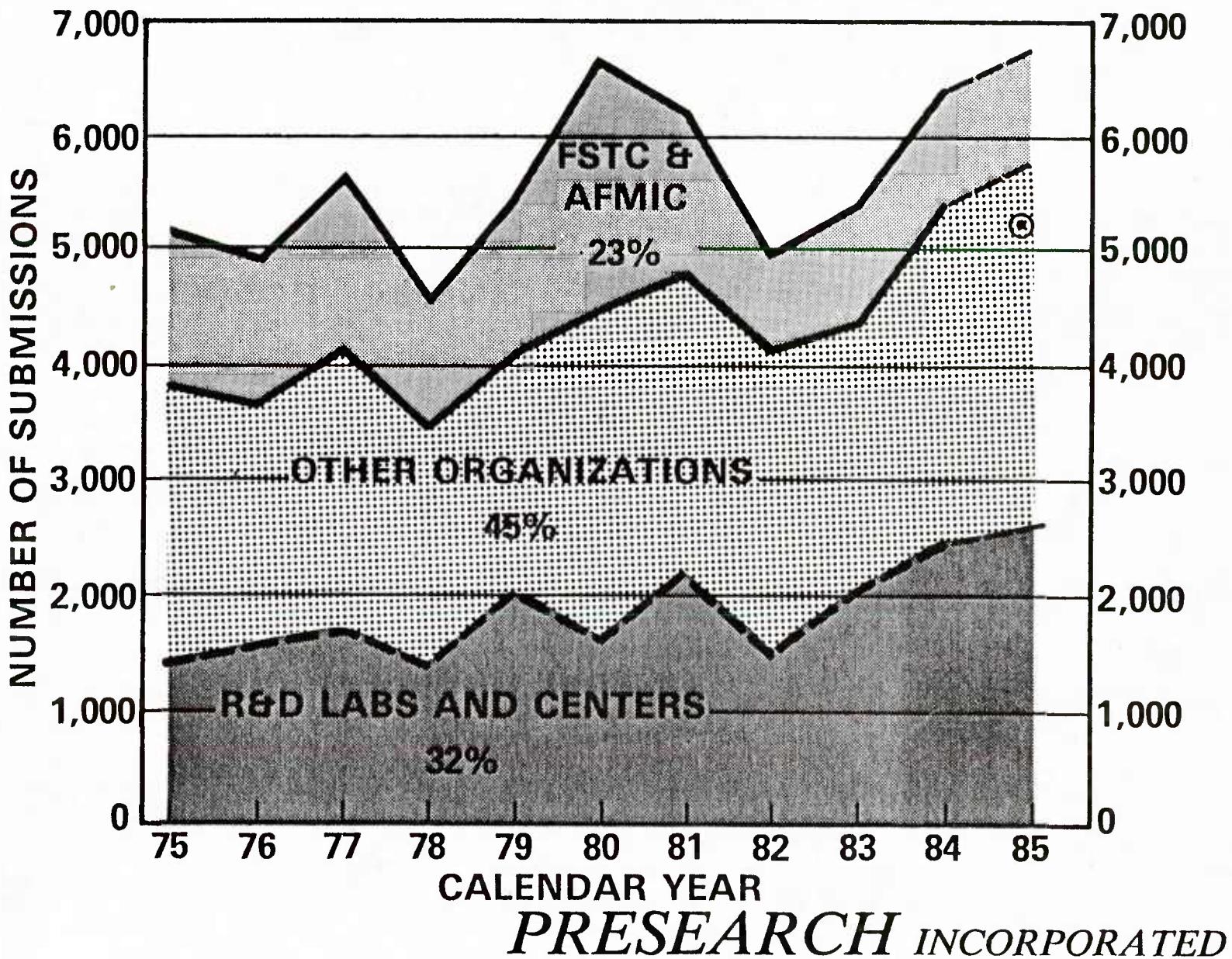
The top part of the chart shows something that some people may not be aware of. As of 2 days ago, the DTIC database contained 53,060 documents which are translations of foreign information. Most of these translations are provided by the different Service scientific and technical intelligence agencies--the Army Foreign Science and Technology Center (FSTC), the Naval Intelligence Support Center, the Air Force Foreign Technology Division at Wright-Patterson AFB, and the Armed Forces Medical Intelligence Center at Fort Detrick. The Missile and Space Intelligence Center, which is a fifth scientific and technical agency, puts their translation work in through FSTC. The chart shows that FSTC and the Armed Forces Medical Intelligence Center have contributed 23 percent of the Army entries to the technical report database. These are primarily translations of foreign journal articles and books of scientific and technical interest. The Armed Forces Medical Intelligence Center is now a DoD agency, but for almost all of the period concerned, it was an Army agency.

I would like to read a point in regard to the translations being put in. This is from DoD Directive 3200.12, which concerns the DoD scientific and technical information program, and is at enclosure 1, paragraph I.C.1.m. The Deputy Under Secretary of Defense for Research and Engineering is responsible to "provide coordination and liaison with the Defense Intelligence Agency and other federal intelligence agencies to effect transmittal of relevant information and translations derived from technical intelligence activities to DTIC and appropriate information analysis centers in accordance with current dissemination and release procedures." That's what's behind the 23 percent.

A fact I might throw in here to illustrate the magnitude of the translation effort is that as of 15 Mar 85, the five scientific and technical intelligence agencies exploited a total of 1,405 foreign scientific and technical information journals. Of these journals, only 250 appear in English. That leaves 1,150 that something needs to be done with if we're going to get information out of them.



ARMY SUBMISSIONS TO DTIC TR COLLECTION



Let's go on to the next observation. No Army librarian will be surprised by this one. We got questionnaires back from 21 libraries. The total staff of these libraries consisted of 155 people. Of those 155, 57 spent all or most of their time using DTIC resources or inputting information into DTIC. Some of the bigger libraries reported as much as 500 to 600 manhours per month involved with use of DTIC information.

The next finding is that use of the technical report database through DROLS saved the libraries a lot of time. They were required to catalog, locate, and retrieve information. Several of the libraries used DROLS to supplement their own cataloging capabilities. I think this has been recognized.

The next observation is sort of like apple pie and motherhood. The more descriptive and accurate the keywords or subject terms that you assign to a document in a record, the more that retrieval of the information is facilitated. I'll come back to that point later.

The final observation is that Army librarians recognize that DTIC has some constraints. The ones that they mentioned are:

- o The DTIC budget inhibits procurement of needed personnel and equipment; the automated system needs improvement.
- o Dependence on the mail for procurement of hard-copy documents from DTIC slows response time for requests from library patrons.
- o The DTIC Retrieval and Indexing Terminology (DRIT) document is outdated.
- o Paper documents reproduced from microfiche are sometimes difficult to read.

I would like to add a tribute to DTIC--of all the librarians we talked to and got comments from, not one felt that DTIC was not willing to work out a problem if it was brought to them. There are some constraints, but DTIC is working hard to do the best it can within its resources and capabilities.

Now, what can the Army do to use and support DTIC more effectively? Our first finding was that 25 percent of the people out there (and maybe more than that) don't know that DTIC exists. I think that speaks for itself. If people are benefitting from using DTIC, it seems that the Army needs to make more of its scientists and engineers aware that this information resource is available. This is a piece of the overall problem of getting scientists and engineers to use the information resources available to them. Our recommendation in this regard is that all levels of Army R&D management in the technical libraries should ensure that all scientists and engineers are familiar with DTIC products and services; understand the benefits to be gained from use of DTIC information; and comply with Army requirements for use and support of DTIC in the scientific and technical program. I think the key is R&D management. As Jack Kolb has stated, he's been trying for years to do this. There's an ongoing effort in the Army to get management more involved.

This next finding is nothing new. If I remember correctly, a GAO study 3 or 4 years ago estimated that 50 percent of the information that should go into DTIC is not coming in. As far as technical reports and work unit summaries go, I can tell you that a number of Army information specialists and librarians told us not everything is getting in there. A recommendation in regard to this finding is that Army R&D management should ensure that scientific and technical materials of interest to the Army and defense R&D communities are submitted to DTIC. There's at least three Army regulations that provide direction for this purpose.

Chart 6 shows the scientific and technical information flow. I've shown a circle on the right which is the Army R&D intelligence agencies; on the left, the scientific and technical intelligence agencies. These are both DTIC users. Army R&D puts technical reports in the technical report collection, and takes them out and uses them. Those technical reports are also available to scientific and technical intelligence analysts who find them invaluable as a means of keeping track of what's going on in research in the U.S. You can't really evaluate some fragmentary piece of information obtained from intelligence sources unless you know how it fits into the overall state-of-the-art in that particular field. That's one of the things that DTIC is doing for the intelligence community. The chart also shows that the Army R&D agencies are taking translations out of the technical report database. The technical report database is an invaluable and unique source of translations because you can not only identify that a translation is in there, you can get the full text of it just like you can get the full text of any other technical report.

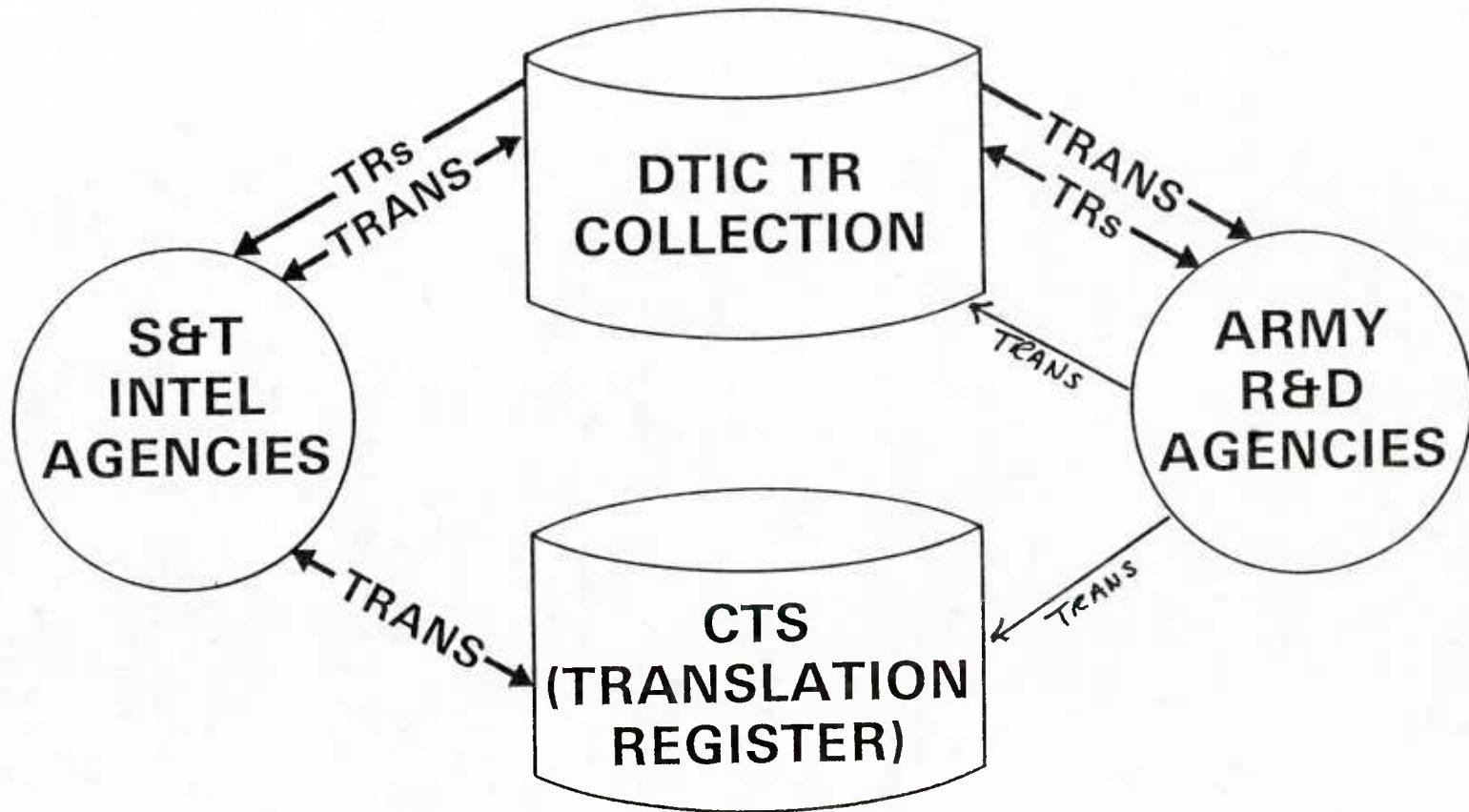
Looking at the left side of the chart, we can see that the intelligence agencies provide translations to the technical report database. The scientific and technical intelligence agencies, when they do a translation, inform the Consolidated Translation Survey that they have done that translation. But, there's something wrong in this picture. The thing that's wrong is that the Army R&D community is contracting, or producing in-house, lots of translations which are not going into the DTIC technical reports collection. Nor are they being registered with the Consolidated Translation Survey. To what extent is this a problem?

The R&D community in the Army has two channels for having translations done. One is by sending them through channels to FSTC. They have a translation branch which either makes the translation in-house or has a contractor do it. When they produce a translation, they notify the Consolidated Translation Survey and they send a copy to DTIC.

What is the other channel? Of 32 Army technical intelligence libraries that sent us back questionnaires, 19 contract to have translations prepared. One of them has an in-house translation staff. Of these 19 libraries, four send completed translations in to DTIC, and only one sometimes notifies the Consolidated Translation Survey of the existence of this translation.



S&T INFORMATION FLOW



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Let's look at this another way. One hundred seventy-one (171) R&D document translation requests were sent to FSTC in CY 84. This represented 3.1 million words. The translations procured locally, either in-house or through contract, amounted to 4.5 million words, or 750 documents. Many of those documents are pieces of correspondence or small items which may not be appropriate to put in the DTIC database. But the response we got back indicates that most of them are translations of journal articles and some are books; in many cases, these are in languages other than Russian. German, French, Japanese, Swedish, Hebrew, and even Serbo-Croatian are languages that came up very frequently--Hebrew and Serbo-Croatian particularly in the medical area.

When FSTC does translations, they send them all to the DTIC technical report database. Of the R&D translations produced, only about 50 out of some 750 were sent to the technical report database--less than 10 percent of the translations that are being done in the Army R&D community are available to anybody other than the requester or the library that processed the contract.

What's the impact of this? It seems reasonable to estimate that about 400 to 600 translations produced in 1984 were lost to the scientific and technical intelligence community and to the R&D community. Problems in that area are that somebody might spend the money to have them redone and the information is not available to people.

What are the reasons that they're not going in? One of the reasons given was "Nobody ever told us to!" And I think that's true. I know in the DoD directive and in the Army regulations, nobody says "put translations in the DTIC database." The next point was they "didn't know DTIC collected translations." Well, they do. Next point is--and this might be the controversial thing--a lot of people know that these translations are made from copyrighted materials, and they're worried about infringement of copyright. Now, I'm not going to stand up here and act like a government lawyer and tell you all the legal points. But, the translations being put into the technical report database by the scientific and technical intelligence organizations are restricted to use by the government only. The general practice is that as long as these translations are not put in the public domain--for example, by being made available through NTIS--there is no problem about their use within the government. If you want a little bit more on this, maybe Zaida can talk about it, because the Consolidated Translation Survey also keeps track of which translations are copyrighted and treats them as For Official Use Only information.

The next finding has to do with the time required to get hard copy documents. I think the Army can do something about that. We found that about two-thirds or more of the bibliographies and work unit summaries that are obtained from DTIC are obtained in hard copy and not printed out at the local terminals. Why? Because these Army libraries have very limited-capability printers. For something like \$8,000 a library can buy a laser printer which can spit out three or four pages a minute. With it you can print bibliographies and give them to your customers within an hour rather than waiting from 2 to 8 weeks for a DTIC hard copy bibliography to show up through the mail. On the technical report side, DTIC provides Automatic Document Distribution (ADD). You can get

microfiche copies of reports of interest to you, keep them at your library, and if you have the resources to make paper copies, you can avoid a 1- to 6-week wait to get a technical report through the mail. So our recommendation is that Army R&D management direct the laboratories to upgrade their printers and their equipment for making paper copies of DTIC microfiche documents.

Finding number four--the 21 libraries that responded to our questionnaire have a user population of around 8,000 people; 213 of those individuals use the Current Awareness Bibliography (CAB) service. This figure seems quite low. We think that management and the technical libraries should ensure that the scientists and engineers know about the CAB service and know how to go about setting up a profile which will get them bibliographies relevant to their areas of interest.

The fifth finding goes back to indexing. There are a great variety of technologies and interests represented in the Army libraries and laboratories. It's difficult for a few people here in DTIC, even though they are accomplished indexers, to keep up with all the terms. (I'm surmising that--I haven't interviewed the indexers.) Some of the libraries which participate in the Shared Bibliographic Input Network (SBIN) program say that SBIN has helped them input their documents in a way that they can retrieve them. So our recommendations are that Army R&D managers should first ensure that technical report authors are careful about filling out block 19 of their 1473, and that Army libraries should participate in the SBIN program.

This sixth finding is the last. The scientists and engineers need to provide more support to the technical information specialists. Technical information specialists are not physicists in laser optics and all these things, and they learn a lot about them in the course of supporting their work, but they could use more guidance. We found that libraries that have more end user participation in construction of search strategies seem to provide a higher number of relevant documents to the customer. Our recommendation then follows from that. Army technical libraries should provide training on information search procedures for their scientists and engineers.

That concludes what I came to tell you. Army use and support of DTIC is the joint and equal responsibility of management, the scientists and engineers themselves, and the technical library staff. With that, I would like to turn the podium over to Ms. Zaida Thompson who will tell you about the Consolidated Translation Survey.

**ZAIDA THOMPSON
Foreign Broadcast Information Service
Consolidated Translation Survey**

Mr. Hubbard has already told you basically what my office does. We run the Consolidated Translation Survey, which is an index of translations that have been done on anything taken from foreign publications. It is an automated service and it is the only systematic means within the government to keep track of material that has been translated in order to avoid duplication of

translations. The service, as it is operating now, is saving the government about \$2 million a year, and this is increasing all the time. As Mr. Hubbard pointed out, we are still not getting as many of the translations that are done in the government by the R&D community as we would like.

If you are at all involved in doing translations, or in getting translations done by contractors, please let us know. This is the only way that we can then let other agencies that might be considering doing that particular translation know that it is already being done. The time to let my office know that the translation is going to be done is right when you make that decision to translate. Don't wait until the translation has been completed, because between the time it's begun and the time it's completed we may get other queries, and another agency may begin to translate that particular document or book. You can contact us at Consolidated Translation Survey, Foreign Broadcast Information Service, P.O. Box 2604, Washington, DC 20013.

This service includes not only scientific and technical translations, but translations covering the entire gamut of activity as far as work being done within the government--political, economic, sociological. It is not restricted to scientific and technical documents, although a good part of what is in the index is scientific and technical because that is a major activity within the U.S. Government.

One last thing concerning the service we provide. It is strictly a bibliographic citation. When you call us to ask whether a particular document has been translated, we will tell you if it has been done, and the agency who did it. That is all we provide you. We do not provide the entire text of the translation. It is then up to you, whether you're in a library or in a research laboratory, to go to the agency that had the document translated and get it. I hope this is going to change in the future and we're going to be able to do everything, but at this point we can only let you know that a document has been translated and point you in the direction to get that particular document.

CONFERENCE WRAP-UP: DROLS User Council/DTIC Directors

**KURT MOLHOLM
DTIC Administrator**

During the past 2-1/2 days, it's been very interesting for me and the DTIC staff to meet with you and face some moments of truth. We found out how well our products and services are measuring up to your expectations and your needs. Unless we hear from you about the good things we do and problems you are having--what you need in the way of products, what you need in the way of services--we can't really strive to improve them. So we'd sure like to have that feedback from you.

I'd like to make one announcement for your planning purposes. Next year, to somewhat offset our increasing costs, we're going to raise the DROLS connect time for dial-up users to \$30 an hour. This will be effective 1 October 1986. Additionally, we're going to reduce the number of "free training hours."

Before we get on with the program, I'd like to present a plaque to one of the hardest fighting and hardest working people that I've been associated with in a long time, particularly in regard to DTIC. Within a week after I came on board, I had a visit from Mr. Fred Lewis, a member of the DROLS User Council, to tell me all the good things, all the bad things, and what they were doing to help us. Fred is not going to be as active now. The plaque says, "To DTIC's Best Corporate Friend, Fred "Fireball" Lewis, Hughes Aircraft Company, Radar Systems Group." Thank you, Fred.

**WILLIAM HANSEN
DROLS User Council President**

Good morning. Before we get into the meat of this session, I would like to express the appreciation and thanks of the User Council to three of our outgoing members--Rosalind Cheslock, our outgoing Vice President; Marilynn Johnson; and of course, Fred Lewis, whom we have just honored.

Now I'd like to introduce the newly-elected members of the Council: Ken Thoenes, Frank Westerman, and Sherril Hisaw. Our reelected members: Sandra Young and Kathy Wright. Our incumbent members: Laura Thompson, Harold Smith, Patt Pulliam, Blanche Shiflett, and Alma Spring. Patt is our Vice President this year; Alma is our Secretary. You're stuck with me again for a year as President. Thanks.

I would like to compliment DTIC and ADPA for the proceedings of last year's meeting. I find it to be a very useful document and refer to it quite often to clarify various matters. I would certainly encourage its publication again this year. Whatever you did, you did good! We might like to see it a little sooner though.

I want to go over a few things and make a couple of clarifications. In an issue of the "Inverted File," we made some statements concerning the ranging capability--that is, using the parentheses in your search strategy to limit the search by range. We said it was most efficient to use that capability in the

first level of the search. We have since discovered that that is not technically correct, and that if you use that ranging capability anywhere in the search, it has the same effect. So you can put it at the end, in the middle, at the top, wherever you would like. We were misinformed on that, and we're sorry that we put that information out.

I'd like to mention briefly the initiatives that we plan to continue this year--some of the new ones and some of the old ones.

o We're going to continue to monitor the development of the Program Summary database, as we have in the past.

o We're going to follow very closely the development of documentation for the various databases, and perhaps help with some of the new training products.

o The limited documents issue is not over. We had a very interesting panel discussion this time. We think that there was a great deal of very useful information put out in that session, and we'd like to keep the ball rolling.

o The TAB alternative question is another area that we're going to be looking at.

o We're going to follow the KG-84 situation--the crypto equipment situation.

o It's been announced that the Form 1473 is under revision. We're going to ask DTIC to coordinate with us any drafts that come out so that we can get some user feedback on any revisions to this form.

o The issue of multiple copies of the Form 55 is still somewhat in a state of confusion. We're going to try and clear that up and let you know what the final outcome of that is going to be.

Finally, I would like to say that I plan to send out something that will look very much like our "Inverted File" newsletter before the first of the year. It's going to serve a couple of purposes. It will list the members of the User Council and give you their names, telephone numbers, and addresses. We urge you to contact any of us if you have any questions, problems, or things that you think the User Council ought to be involved in. Remember that our purpose is to address issues which affect the user community as a whole, but if you have individual problems and you're not getting satisfaction, we'd be happy to assist you if we can.

Another purpose of the letter will be to ascertain problems with your mailing addresses--if you don't get it by the first of the year, you'll know that there's something wrong with your mailing address. I've had a number of people approach me during the conference who have said they're not getting copies of the "Inverted File." We want to make sure that this is taken care of; so if you don't get a letter from me by January, you need to get in touch with me. If you don't know how to contact me, I'm sure Mr. Klinefelter could put you in touch with me--and everybody knows how to contact him!

I'd like to take this opportunity to open the floor briefly for any comments that you would like to address to the User Council, any questions you might have for us, issues that you think we should be taking up.

JOYCE VAN BERKEL, SANDIA LABORATORIES, ALBUQUERQUE, NM: There are two things that occur to me as we're closing down this conference. It seems like it takes a couple days of talking to people to realize what we're all really worried about, and by then it's time to catch the plane and we don't have time to really talk about these concerns. I think one important consideration for the Council this year is what can we, the user community, do to improve the personnel situation at DTIC. I think it's affecting us all. Some of the problems that we've been having with missing pages in bibliographies and problems with addresses can be attributed to that. We can alleviate that by trying to help with the personnel problems if we know what they are, and if we know who to contact. I know that the only way we can get help at our place is if our users scream--if they don't, then we don't get anywhere. And we start going in a downward cycle.

The other thing I wanted to mention was those missing pages in our technical report bibliographies. We think it's been rectified. We think that the people at DTIC have found out what the problem is. Just before we came here, we had a whole rash of Secret technical report bibliographies that were missing pages. When you go back and order technical report bibliographies, check to see if there are pages missing. The page numbers skip, so it's pretty clear they're missing. If you do notice that happening, please call DTIC and let them know right away. We have a requirement to count pages and that's how we found it; otherwise, we never would have looked in the middle and seen that we were missing one to three pages.

HANSEN: Anything else? Okay, we'll see you next year.

MOLHOLM: We'll now attempt to answer the questions that have been raised. Since we are running late, I've asked each of the directors to take no more than 5 minutes to discuss things in a generic manner and not address each specific question. We'll get back to those of you who had specific questions. We'll try to generalize as best we can, and then after that we'll have a short question-and-answer period.

The first two questions are outside the norm, and I will answer those. The first one asks, "how is DTIC involved in the Model Installation Program?" The Model Installation Program (MIP) is a special high-visibility DoD program. It's a unique experience designed to create installation excellence by removing impediments to efficiency by encouraging innovation, incentives, management flexibility, and information sharing. It basically says that if there's a regulation that's not good, change it; if you can't change it, take it to the next higher level that can. It makes it difficult for people to turn down suggestions, as opposed to the old system that basically said if you can't prove it, that's your tough luck. In the MIP program the thrust is on management not being able to say no. If I would say no to a proposal, it would be reviewed by the Director of DLA.

People who submit proposals automatically get a nice little folder and a pin, which is a high-visibility thing. We have a special handling procedure for fast turnaround. We've had 70 proposals submitted since the beginning of the program. Some of them have improved operations already and have helped in reducing costs.

DTIC is one of a few prototype activities within DLA, and within DoD, participating. We're unique because we do not command the installation where we're located, so it makes an interesting challenge. We implemented the model installation program 1 April 1985. I hate any program that starts on April Fool's Day--but the MIP is a very good thing.

The second question is, "I and many individuals in my company work long hours, not often leaving at the clock-out time of 5:30. It is very distressing when the Government closes down early, which often happens on Friday after 2:00 in the afternoon. I usually don't even try to call DTIC--which my technical staff doesn't quite understand. Could flexitime be managed so some people would arrive and leave later in a kind of relay or shift fashion?" Our telecommunications control center, even on Fridays, is manned until 7:00 at night; our DROLS management office is staffed until at least 5:00; our reference section is there until 5:30 with coverage; our retrieval analysis branch has people in there at least until 5:00 on Fridays; we have a 24-hour recording device on the phones. So I think we are covering it.

WILLIAM THOMPSON
Directorate of Database Services

I will try to be as brief as I can with the answers to some of these questions. If the answers sound a little terse, I'll be available after the conference to expand on them a little.

There were a number of questions concerning putting Current Awareness Bibliography (CAB) and Automatic Document Distribution (ADD) profiles online so people could build and modify their own profiles. Since that's a major undertaking and we have limited resources, it's a matter of priorities to get something like that done. We do feel though that we have to stay in the loop on this because CAB, especially, is a very taxing product in terms of our computer and printing facilities, and the physical handling of these things. A couple of years ago we had a moratorium on CAB service and we don't want to have to repeat that. We also see the possibility that the use of CAB will increase, and we're encouraging that. To my knowledge, there are not problems in working with my people in maintaining, adding, or cancelling these profiles. If there are, please let us know. You may also use the "Comments File" to feed information back to DTIC about cancelling, adding, or modifying these profiles.

You can also use the "Comments File", or write us, to call our attention to errors in the file, i.e., misspelled authors or botched up contract numbers. We don't want erroneous data to persist in the file.

There were a couple of questions about WNINTEL (Warning Notice, Intelligence Sources and Methods Involved) documents. You don't register specifically for WNINTEL documents. It's an additional warning notice. Several years ago we had a problem with WNINTEL documents that did not have distribution statements other than classification. Based on an agreement with the Defense Intelligence Agency (DIA) and the Directorate of Information Security, OUSD(P), all WNINTEL documents that don't have a specific distribution statement are made "DoD only." That's why some contractor organizations can't see them online. There is a procedure through the Form 55 process for getting access to WNINTEL documents that was blessed by DIA for providing blanket release of WNINTEL documents as long as the Form 55 is signed by the senior intelligence official at the originating activity.

In a similar vein, classification guides, when provided to DTIC, are frequently limited by the originating activity with what would now be statement F. This means all distribution of this document must have prior approval of the originator. So frequently they're not available. Internally, they're considered a document type-X--a restricted access document--which is distinct from limitation statement X.

There also seems to be some confusion about documents that are not announced. A common example would be a document that is part of an old collection that is accessioned by DTIC. While they're not announced in TAB, they are available online.

There was a comment about AD-A series documents that aren't available from DTIC. Don't confuse the fact that documents are given an AD-A-series number with whether they're available directly from DTIC. AD-A simply means they're public-release documents. DTIC provides citations to non-DTIC documents, i.e., those that aren't in DTIC's collection, as a service and rely on the availability field in the citation to indicate the accessibility.

A question was asked about the use of the referral listing block on the Form 64. If you check that block, you will get included in your bibliography citations that reference DoD scientific and technical information (STI) activities. For example, if you did a search in ceramics and you checked that block, you would receive a reference to the Metals and Ceramics Information Center. If you don't check the block, those referral citations are excluded.

In trying to identify the most recent document in a long list of superseded documents, the system only accommodates one level of supersession--that is, for a given document it only identifies the document that superseded it. I think it's a rare exception to encounter a long chain of supersessions--like technical objective documents. Searching on the document numbers, or the titles, to find the most recent AD number, rather than starting at the end of the line and going forward, would be easier.

Another question--"Why don't we assign the source codes of the monitoring agencies in the TR file?" I wish we did. We've had an internal requirement to do that for a long time. It's simply a matter of priorities in terms of changes to the technical report file. It's a very difficult file to change. We would hope that as an outgrowth of the development effort to design a new input system, that we can effect some of these desirable changes.

As I indicated in my opening remarks on Wednesday, there will be a new publication of the DTIC Retrieval Indexing Terminology (DRIT) early next year. We've started editing the copy and expect it to go to the printer around the first of the year.

The acronym list is something we put out annually, and the next version of it is in the mill right now. So that will be produced shortly.

Another question--"When do we close out TAB?" Our schedule is to close out TAB on Wednesdays. We don't always meet that schedule because there are a lot of things that can go wrong at the last minute--and they usually do. We've made some changes in our pipeline to give us a little grace period so we can get TAB to GPO on time.

The final question concerns the possible use of IR&D information in government reports. My answer is generally yes; but it depends upon the circumstances. Obviously, one of the reasons for the IR&D database is to help DoD planners avoid duplication between DoD in-house programs and the contractor programs. The information in the IR&D database and in the technical plans is given to DoD on the premise that it's proprietary and provided in confidence. Under public law, there are rather severe consequences for inappropriate disclosure of that information.

"Who should you contact about the use of that information?" I would suggest that you go first to your Service IR&D Program Manager. Eventually, the decision about how or when to release IR&D information to other government agencies rests with Dr. Leo Young, Chairman of the IR&D Technical Evaluation Group. To release IR&D information in a publicly-available document would require explicit prior approval from companies that provided the information, project by project.

CHARLES GOULD
Directorate of Document Services

I hope that each of you has enjoyed the conference so far and that we have been able to provide you information that will be helpful to you as individuals as well as your organization. I always look forward to this time of the conference because this is the time when we get a chance to provide you some answers. Remember--I didn't say answer your questions, I said provide you some answers. There is a difference.

Some of the questions I received can be answered readily. Others will have to be researched and we will get back to you. Still others were so specific that someone from my office will contact you as soon as possible to provide an answer, rather than coming out with a general answer for everyone.

There are two or three questions that came to me that I would like to address now. The first: "Explain something about the registration process so far as termination is concerned." I think it was mentioned from the floor a couple of times that users had their service terminated and didn't know anything about it. Let me tell you our process. Government users that are registered with us must be certified annually. This is usually done on the anniversary of when they were initially put in the system. Contractors, or nongovernment

users, must register and certify when they initially come into the system and then any time there is a change to that contract or grant. We will take you out of the system if we get word from the Defense Investigative Service or from the contracting officer that your company is no longer in the system. We will send you a notice 60 days before your registration is to expire. If you do not come back to us and recertify by the end of that 60 days, we will drop you from the system.

COMMENT: Sometimes we just don't receive our mail. We're not really complaining about your procedures, but rather saying that sometimes accidents happen and things get misrouted. It would seem to me that if you send a notice to a government organization that has been a DTIC user for 10 or 12 years and you don't get a reply, it would not necessarily mean that they are not interested in participating in DTIC anymore. It would more likely mean that something has gone wrong somewhere. I'd like to recommend that some kind of failsafe procedure be initiated.

GOULD: We'll look into that. One of the problems is the fact that this notice goes out to the address that is in our MUAC file. It so happens that a lot of times things do not trickle down to someone who would initiate an action to recertify. Sometimes they will get right to the particular office and don't go any further because they assume somebody else is going to take care of them and they don't. But I will check with the people in our Document Processing Division and see if we can't come up with a recommendation to get around that.

WILLIAM HAMMETT, CENTER FOR NAVAL ANALYSES, ALEXANDRIA, VA: At the beginning of every fiscal year our prime contract is renewed and we go through the drill of recertifying and reregistering at DTIC. I generally have no trouble responding to you in adequate time, and I'm only 10 minutes from your front door. We have, however, had a situation on a couple of occasions where contracts were not actually signed until the twilight hour--until maybe the last remaining 1 or 2 working days at the end of the fiscal year, and our drop-dead date at DTIC is 1 October.

Another example, 2 years ago we were taken over by a new organization. The contract was signed on 1 August. There was plenty of time to get it to DTIC. Well, unknown to us, the procedure we used was administratively incorrect. It went to DTIC registration, it was incorrect, and we heard nothing back from DTIC. I went to search on DROLS around 2 or 3 October that year and found I was dropped and couldn't understand why. That really caused us a lot of problems. We did get back online but we were 2 weeks without DTIC service.

There are two points I'm trying to make. First, in those eventualities when there is something administratively wrong with the paperwork, couldn't DTIC contact us and let us know there is an error instead of leading us on to think that all is in order--only to find out it's not. Second, is it possible--I would suspect not--that when these contracts are signed at the twilight hour, to put in a buffer period into the process--possibly a 10-working-day grace period--to allow for those eventualities?

GOULD: I will look into that. Off the top of my head, I would be reluctant to say yes on the 10-day grace period. The reason being that there is always that possibility that maybe you're not going to get the contract. Now, you

could order 50 documents during that 10-day grace period, and we'd have to honor your request. Then all of a sudden we find out you're not going to get the contract anyway. But I will look into anything that we can do concerning your first point--maybe we can come up with some sort of follow-up system.

Another question I have is, "Will we provide credit and/or replacement for any documents that are damaged enroute?" Yes. Just let us know that you got a document that was all chewed up as it was going through the mail system. All you have to do is call us and we'll credit your account; not only that, we will also send you another copy. Call 274-7633 and anyone who picks up the phone will be able to help you.

I want to mention one specific request. Barbara Newton from the Air Force Weapons Laboratory has inquired about the possibility of DTIC informing her of all contracts that are monitored by AFWL for some specific purpose. This is something we'll have to look into back at DTIC. If we decide we can provide this service, a notice will be published.

KAY KEENER, NAVAL WEAPONS CENTER, CHINA LAKE, CA: A couple of years ago there was a committee set up to look into the problem of reports that were not being submitted to DTIC. At times I have searched for as many as 43 contract numbers and could find no citations to these, either in our library or at DTIC. I still think there needs to be a message sent to the commanders or technical directors of the bases or institutions spelling out what needs to be put into DTIC so they can get the word to the project engineers. I have seen hundreds of reports that go to a project engineer's desk that never get to DTIC or their library. They are interpreting what will and will not be put in so loosely that a lot is falling through the cracks. Could we possibly get something done on this?

GOULD: This has been a thorn in our sides for quite some time. We have had the Defense Audit Agency and the Inspector General look into it. They've all come back with the same thing--that we aren't getting what we're supposed to. The regulations and the letters that we go out with are usually ignored, or at least partially. Right now, thanks to Regina Atkins who is the Chief of the Acquisition Section, we do have a dynamic program going. Hopefully, with the help of your sources out there, we will rectify this situation.

Let me leave you with this. If you have problems or questions dealing with a reference or referral service, call 274-7633; on registration, call 274-6871; on acquisitions, call 274-6847; on distribution statements on documents, call 274-6824. If all else fails, my number is 274-6864. I might not have an answer, but I'll get it for you.

STERLING ATCHISON
Directorate of Telecommunications and ADP Systems

Good morning. We had some 30 or 40 questions from you; therefore, I am going to summarize some of them. In the general area of telecommunications, we are going to have a schedule for installing all of the KG-84s and will let you know the schedule. We are not going to force anybody off the system because they still have a KG-13. I personally will sympathize with you about your

obsolete KG-13, but not force you off DROLS. We just found out in the last 2 weeks that we were getting about half of the total number of KG-84s. The first half of the KG-84s resulted directly from the intervention of General Babers, the Director of DLA, and he has given us a timeframe for installation.

With respect to the sign-on problems, so far as we can tell, the difficulty is caused by the distortion of the TYMNET signal. There are several alternatives as to what we might do. (This has been fixed since the conference.)

Someone asked about our plan for ARPANET and MILNET (DDN unclassified and classified service). DTIC has had general plans to provide DDN service for several years. I personally have looked at DDN service within the last month, and we will be getting back to you on that. As I understand it, the classified part of the DDN is not yet available.

We had a lot of miscellaneous questions related to DROLS service and DROLS response time. To improve DROLS response time and service, we are replacing obsolete computer equipment and augmenting capacity. Installation of the replacement ADP equipment is scheduled for November 1985 through January 1986. The equipment supplier is Amperif. I don't think the physical replacement will cause you much disruption. The replacement ADP equipment will improve response time because we have been offered even more ADP capability, in terms of the amount of mass storage and performance, than we asked for when we wrote the specifications. Therefore, I hope that you will enjoy faster DROLS response time after the first of the year.

Because of time constraints, I'm going to go through a few of the general questions now and we will get back to you later on the others.

First, I'd like to make a comment. There's been a lot of comment through the years that services from DTIC couldn't be provided because of lack of ADPE, and some of those comments have been very erroneous. The fact is that we are still very short of systems analysts and programmers. We have a couple of things going for us, though, that we did not previously have. We have an Administrator whose background is in ADPE--very much so--who understands what the requirements are. Another factor is that as of about 1980-1981, there was a considerable change in government ADP procurement practices reflecting the influence of the Brooks Committee. There are more possibilities and more flexibility for improving hardware capabilities for DTIC than existed in the late 1970s. DTIC-Z is taking advantage of this flexibility as fast as money is available in order to provide better service to DROLS users.

One more comment on ADPE--this morning when I went by DTIC, I had no backlog. There's not a single person at DTIC waiting for any computer output from me. The DROLS system was up. Normally, DTIC-Z causes less delay in the TAB cycle than the other players in this process. Frequently, we catch up 2 or 3 days that have been lost elsewhere in the TAB cycle. So I think things are looking up in computer support and services at DTIC which affect DROLS and the products and services you receive from DTIC.

In answer to a very specific question about classified printer ribbons--yes, you destroy them as classified material.

In answer to the question asking for the cost of a single document, we're going to look into that. Certainly we will provide that feature.

Some of you asked about the capability to enter a stack of DROLS commands. We're going to look into that and let you know. One disadvantage to this is that if you enter an incorrect parameter in any of those commands, it may ruin your whole search. We expect to have a number of features like this in the redesign of DROLS; but we're going to look specifically to see what we can do in the immediate future.

Another specific question concerned aborting a search. Every terminal, I'm told, has a break key. If you want to abort your search and don't know what your break key is, then I recommend that you read your terminal manual or contact your terminal representative. There are so many terminals out there that the DTIC staff does not have specific information on all of them. However, there is a break key on all terminals and you can use it to abort your search.

Concerning the DROLS message "unsolicited message available"--you get the "unsolicited message" by putting in the \$\$SEND command. We do not interrupt your search. We just put it up there so you'll know. You may not like the message--it's a broadcast message from the DCP/40 Front-End Processor, which almost always says that either DROLS is going down or DROLS is coming up.

Some of you asked a question concerning truncation of the DROLS command. We're going to look into that again. Let me tell you what the possibilities are if you accidentally truncate a command. The reason for the current truncation capability is that if you truncate down to anything--like AN, DIS, or RE--you can get thousands of irrelevant hits. We would really like the DROLS User Council to review this matter for us and give us some advice.

Offline printouts are mailed the next day. If you don't receive your bibliographies in a few days, please call us because there might be a security or other serious problem. We need to start trying to trace any printout you don't receive in a few days.

Some people are wondering about signing up as dial-up users. Jerry Milstead has some applications in his pocket, or if you don't see Jerry, give us a call. You can call the Online Support Office on (202) 274-7709.

For those of you who want to recall a search, you need synchronous service in order to do that. You may need a PC or a terminal with a buffer for the synchronous service. We sure would be willing to try to provide the capability. However, it is not practical if you are an asynchronous user.

We are going to rethink the whole process of getting passwords to you. For that reason, we would appreciate hearing from you if you think you should have gotten a password and did not.

We will look into saving the Form 55 data for you in the computer or in your PC terminal, if you are a synchronous user.

With respect to DROLS reference tools--we give everybody a free copy of all reference material when first becoming a user. We also have cut-rate prices for DROLS users for some of the publications. A recent example was DRIT. We intend to use reduced prices for other large publications you would use. If you have already gotten one copy of the ones that are already in the system, you may have to pay the regular price for an additional copy. If you really have a problem with the price, call the Online Support Office and we'll see what we can do.

Concerning Boolean logic--to change the results of previous searches, this capability is a requirement for the replacement for DROLS. Again, we're looking at the feasibility of downloading to PC disks, and to providing output on disks which we would mail to you. If those capabilities would be of use to you, please send us a note concerning your interest in, and projected use of, the capabilities.

We will look into supplying you more definitive connect times. We would appreciate the questioners identifying themselves to us because we can get back to you easier that way.

I would have liked to have had one of two more of the DTIC-Z people here today to meet you, particularly Dick Astrayka who is responsible for the staff that operates the computers at DTIC. He has one of the most difficult jobs at DTIC. I also plan to have the other Technical Control Specialist, Diann Kessler, here next time. She and Mike Sullivan are the people that you would see if you need help at your site. I would have liked to have had the head of our Operations Division, Ernie Rhoad, here today. He plans to retire at the end of the year after many years of service to DTIC and its users. I appreciate the service that all these people provide to you and I would like to make them better known to you.

I also would like to recognize Larry Jenkins who has graciously helped us with procurement requests, specifications, and selection of computer equipment. Larry works over in the old DTIC-J organization--now DTIC-E. Without Larry, we would have a very hard time getting the equipment we need to serve our users. He and Gary Claypoole do almost all of the procurement work. We and you, the users, really owe these two gentlemen a debt of gratitude.

**PATRICIA GAYNOR
Special Assistant
Office of the Administrator**

A couple of people raised some questions about the accessibility of military publications. They made the suggestion that DTIC take over this task from the military services. Actually, we accept this as a compliment, but unfortunately, it's also a monumental task. It would swamp DTIC, both in the volume of documents and the number of requesters that we would have to serve. We deal, as you must know, with a very limited clientele--somewhere in the area of 3,000 registered users. I would hate to think of adding to your numbers the number of people who go to the Navy Publications and Forms Center to get the material that they provide.

Perhaps the most significant problem is the nature of the documents themselves. They are very different from what we have at DTIC. Military publications, like technical manuals, for example, are dynamic documents. They're continually changing--and that's part of the problem that the publication centers have--where DTIC's technical reports are basically historical and, as such, they are more or less static documents. True, we do get some changes from time to time, but nothing to the extent that the military publication centers have to deal with. Part of the problem, of course, is all the Services do it differently, but the mission of each publication center is the same--to support its particular Service first and foremost. Then they serve others in DoD, and apparently contractors come in a very poor third.

There is a group of contractor representatives in the Washington area who, in about the last 2-1/2 years, have started what they call a Military Publications User Council. I've been somewhat involved, as has Jack Kolb, as a resource person. Their principal thrust is to work towards achieving some consistency among the Services. They also are trying to get to the people in the Services who can make changes--to make them aware of the problems, which, of course, is just the beginning of making appropriate changes. The original chairman is now retiring, and the Council itself is in a state of flux and will very shortly be trying to get together and regroup. I have the names and addresses of a couple of people who asked these questions, and I will pass them on to the Council. When they have gotten together to decide where they go from here, and how they think they can accomplish something, I will see that they get in touch with these individuals. There is a bit of a political problem here, of course. For us to suggest that DLA take over these disparate tasks from the military services certainly smacks of empire building. Remember when DLA was given charge of all the supplies? Some of them haven't swallowed that yet. But these representatives of industry are trying to get together at least to solve the problem. We can at least put you in touch with these people to see if you might also want to participate.

**PAUL KLINEFELTER
Office of User Services**

We will try not to make changes before we tell you about them. It seems that has happened a time or two.

The new users manual is in your handout. It represents a considerable effort and is modular and punched so that it can be updated easily as things change--not the whole book, which is a huge job, but only those pages that have changes in them. We also intend to address applying this modular approach to the online training materials. Some of you have suggested that we go into videotape and videocassette training, which takes training we have to do anyway and, in effect, packages Jim DePersis and Laurie Lubsen and makes their instruction available to you in those media. We'll look into that and see whether we can do it.

Some people thought that local online user groups should be used more. The initiative should come from you, but we'll try to encourage it. A case in point is the fact that we used to have online training sessions for the Washington, DC, area which were very much appreciated. Maybe we can make that a model for organizing more of them.

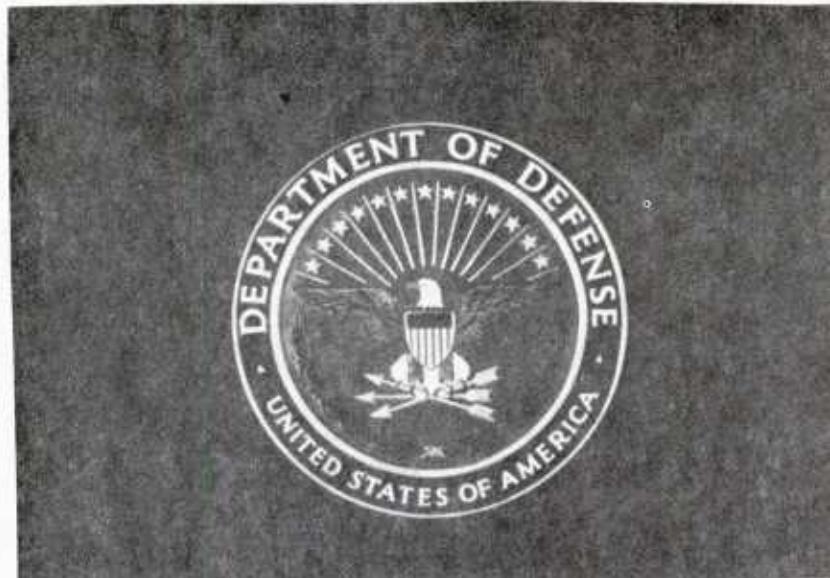
The Office of User Services is an information window, a source of help and information if you can't get it anywhere else. Since we try to do that but want to do it better, I want you to remember my phone number--274-6434 or Autovon 284-6434. If you don't get satisfaction or help somewhere else, or don't know where to go to get a question answered, we'll help you. DTIC's telephone index, of course, should be your first place to look.

MOLHOLM: You've been given a lot of telephone numbers over the course of this conference. The numbers you have been given already are the people who really know and can help you. The point is the higher you go in an organization the harder it is to get answers. When you get to the top you've got the dumbest one in the organization. That's one of the reasons we have such things as model installation programs and quality circles. Of course, if all else fails you can call me on 274-6800.

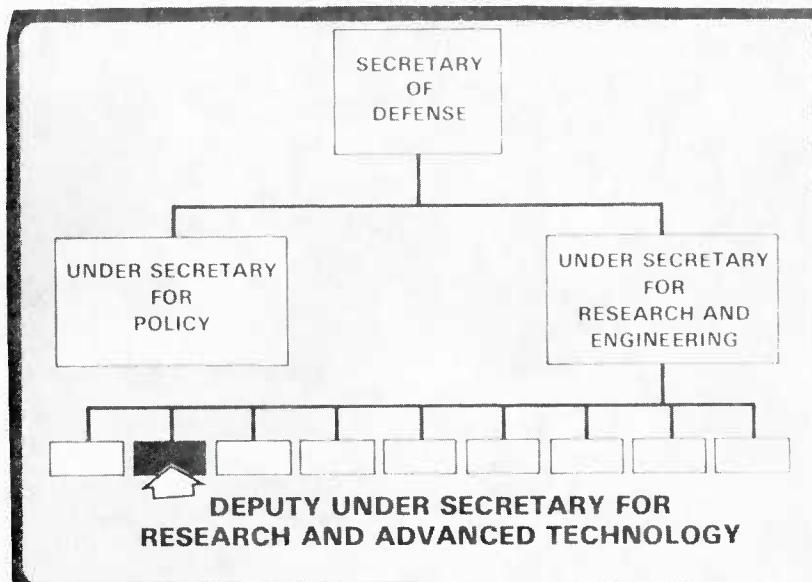
We don't really have, as has been suggested from the floor, a resource problem in DTIC. We do have a prioritization challenge, though. What we have to do is figure out what's more important. Obviously, the more resources the more things we can do, but that's a challenge that I have.

I'd like to thank all the people who put this conference together. Paul Klinefelter, Judy Pickeral, Tom Lahr, Marcia Hanna, Jim DePersis from DTIC. From ADPA--Nelson Jackson, Beth Jacobson, and Tammy Higgins. It's a very large job to do this. I also thank Bill Hansen and his User Council and Betsy Fox and the Resource Sharing Advisory Group for all the help and the continual feedback we get there. I'd like to thank all the attendees, and I hope you've enjoyed this annual conference as much as I have.

Are there any questions before we close down? Thank you very much. If there's no further business we're done.



SLIDE 1



SLIDE 2

RESEARCH AND LABORATORY MANAGEMENT
DR. LEO YOUNG, DIRECTOR

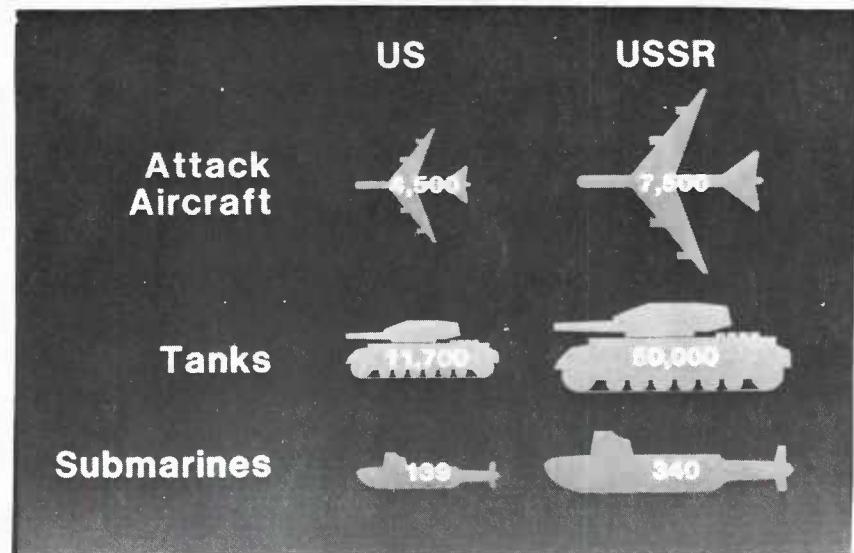
MISSION EMPHASIS:	MANAGEMENT INITIATIVES:
<ul style="list-style-type: none">● 6.1 RESEARCH PROGRAM● INDEPENDENT RESEARCH AND DEVELOPMENT● SMALL BUSINESS INNOVATION RESEARCH● LABORATORY MANAGEMENT● SCIENTIFIC AND TECHNICAL INFORMATION PROGRAM	<ul style="list-style-type: none">● UNIVERSITY INSTRUMENTATION● DoD UNIVERSITY FORUM● SCIENCE AND ENGINEERING EDUCATION● TECHNOLOGY EXPORT CONTROL

SLIDE 3

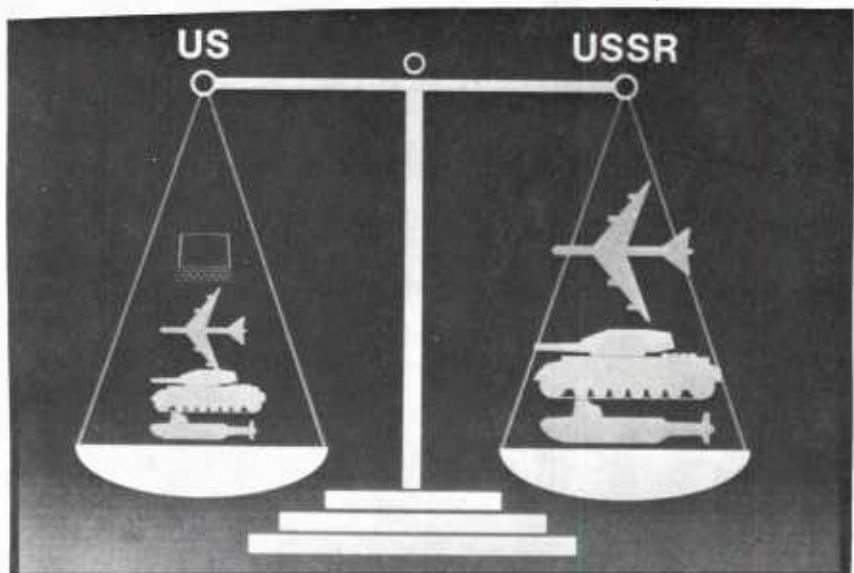
SLIDE 4

Technology Security A Bottom Line Issue

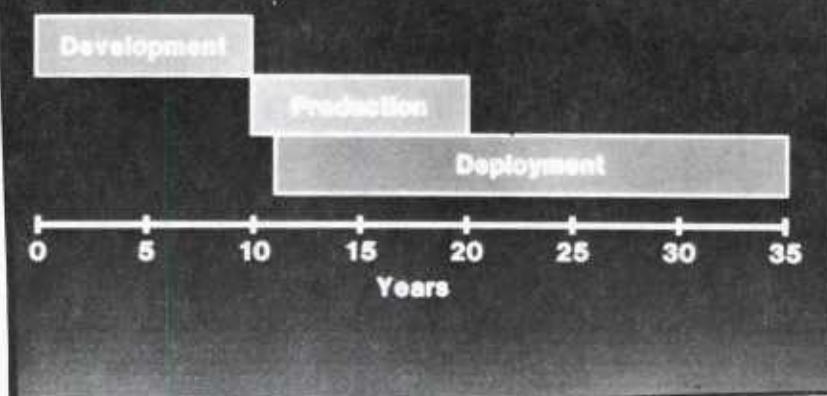
SLIDE 5



SLIDE 6



Loss of Technology Shortens Useful Life of Weapon System



SLIDE 7

**Keeping a System Effective Requires
Safeguarding its Technology**

SLIDE 8

Protecting Our Technology = **Protecting Our Competitive Edge**

SLIDE 9

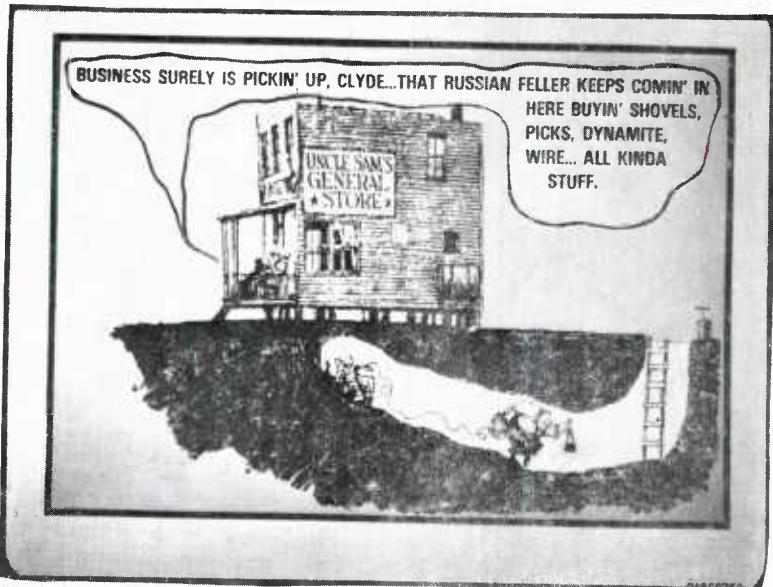
THE DOD SCIENTIFIC AND
TECHNICAL INFORMATION PROGRAM
(STIP)

SUPPORTING RDTE PRODUCTIVITY
THROUGH
INFORMATION SYSTEMS SUPPORT

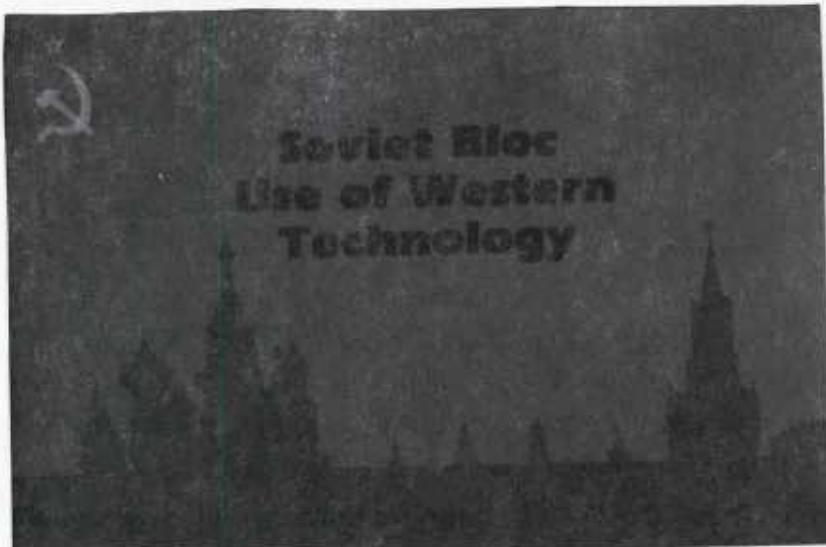
SLIDE 10



SLIDE 11



SLIDE 12



Soviet Bloc Use of Western Technology

SLIDE 13

SOVIET ACOUSTIC BUOY CATCHES



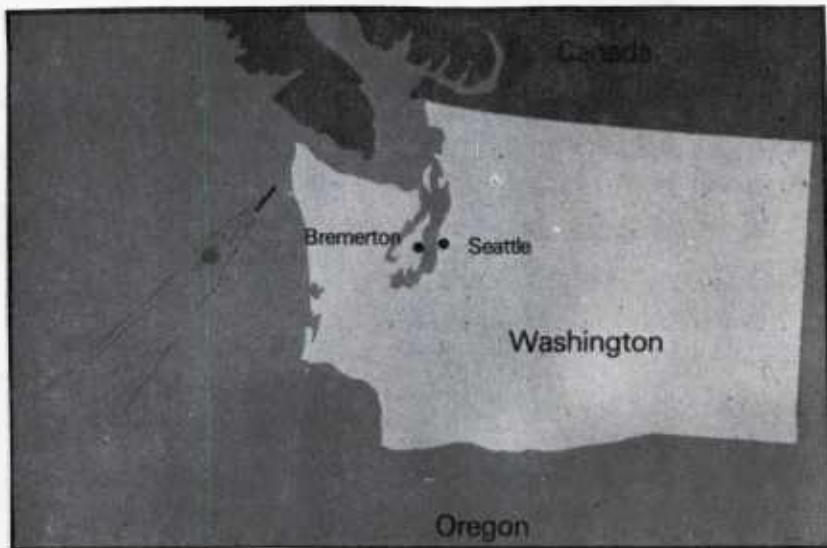
SOVIET ACOUSTIC DATA
COLLECTION BUOY

DIGITAL CODE GENERATOR

USES SOVIET 164 SERIES
MICROCIRCUITS, THE
MILITARIZED EQUIVALENT
TO RCA CD4000 SERIES

- DISCOVERED AUGUST 1982 BY BOY SCOUTS OFF WASHINGTON STATE COAST NEAR TRANSIT PATHS OF THE FIRST U.S. TRIDENT NUCLEAR SUBMARINE, USS OHIO
- SOVIET BUOY IS A COPY OF U.S. NAVY BUOY – REPRESENTS SIGNIFICANT UPGRADE TO SOVIET SUBMARINE-DETECTION CAPABILITIES
- SOVIETS COPIED EVERY DETAIL, INCLUDING U.S. MILITARY GRADE CIRCUITS

SLIDE 14

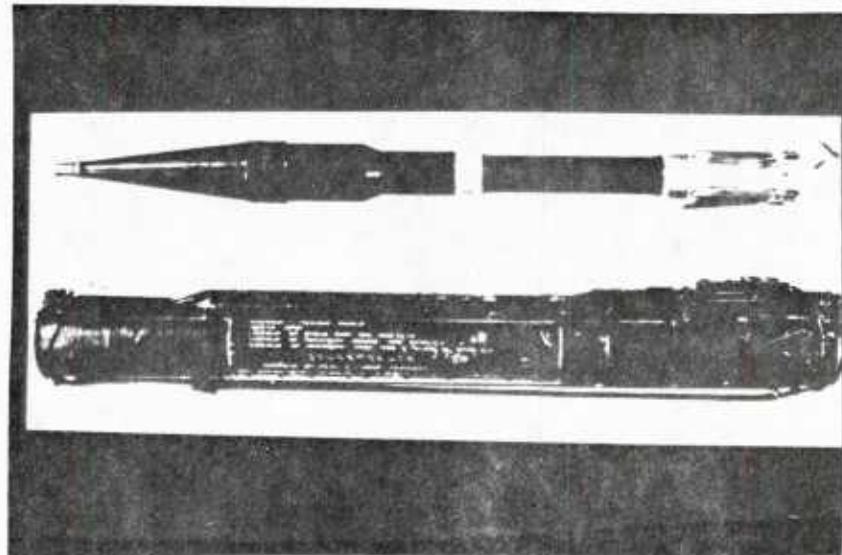


SLIDE 15

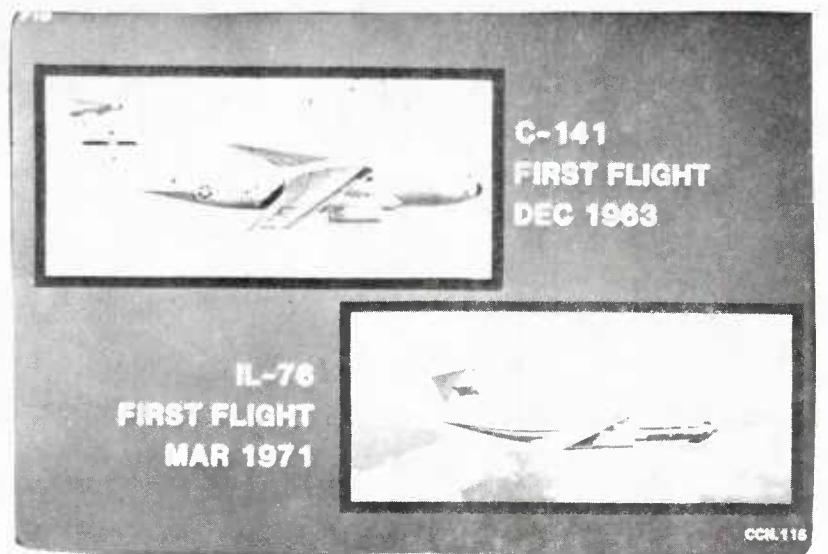
SLIDE 16



SLIDE 17



SLIDE 18





SLIDE 19



SLIDE 20



SLIDE 21

The Soviets Acquire Technology Through Open Sources



SLIDE 22

Open Sources of Technology Information

- Trade Journals
- Scientific Literature
- Conferences and Seminars
- Student Exchange
- License Agreements
- Electronic Data Bases
- Technical Documentation

SLIDE 23

ALL-UNION INSTITUTE OF SCIENTIFIC AND TECHNICAL INFORMATION (VINITI)

- CONTROLS 10,000 SCIENTIFIC AND TECHNICAL LIBRARIES
- LARGEST SINGLE PRODUCER OF SCIENTIFIC AND TECHNICAL ABSTRACTS IN THE WORLD
- RECEIVES 35,000 PERIODICALS
 - CONTAINING 1,500,000 ARTICLES
 - FROM 125 COUNTRIES
 - IN 65 LANGUAGES
- EMPLOYS 100,000 - 150,000 PERSONS

SLIDE 24

THE THREAT TO WESTERN TECHNOLOGY



ALL-UNION SCIENTIFIC AND TECHNICAL INFORMATION CENTER (VNTIT)

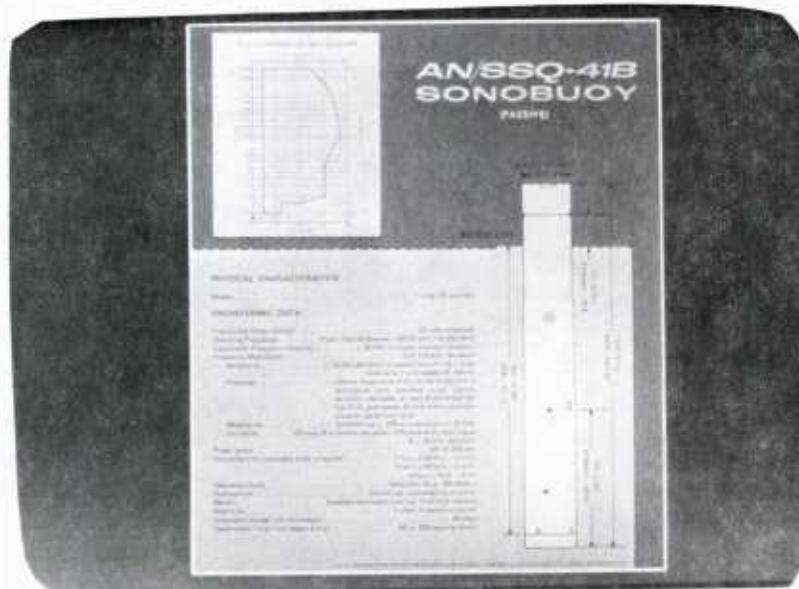
● RECEIVES:

- ALL COMPLETED AND IN-PROGRESS SOVIET
TECHNICAL PROJECT REPORTS
- CONFERENCE AND SEMINAR PROCEEDINGS
- COMPUTER PROGRAMS
- ENGINEERING DESIGN DOCUMENTS
- REGISTRY FOR ALL SOVIET R&D PROJECTS
- ACCESS RESTRICTED TO SOVIET GOVERNMENT
PROJECTS ONLY

SLIDE 25

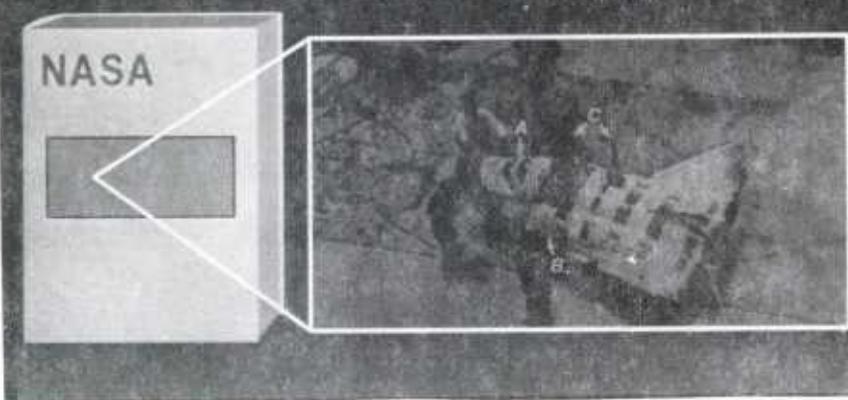


THE THREAT TO WESTERN TECHNOLOGY



SLIDE 26

The Soviets Acquire Technology Through Open Sources



SLIDE 27

TYPICAL SOURCES OF INFORMATION AND AVAILABILITY OF U.S. DOCUMENTS

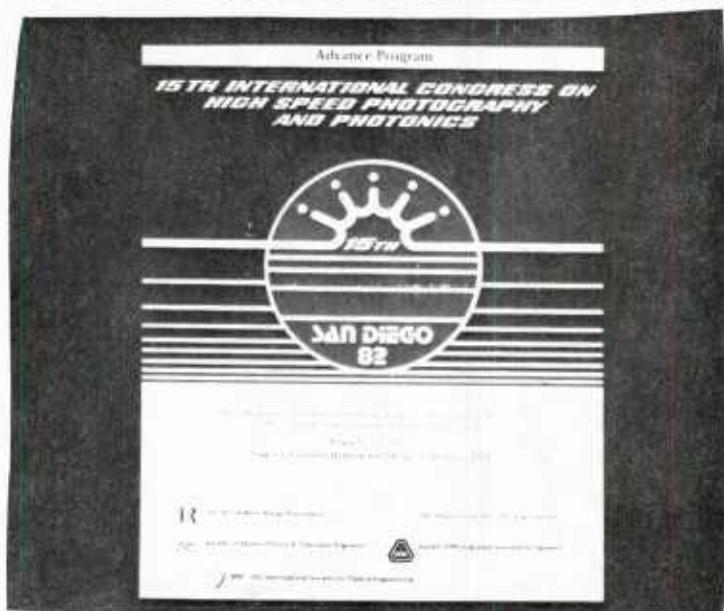
- NATIONAL TECHNICAL INFORMATION SERVICES (NTIS)
 - UNCLASSIFIED AND DECLASSIFIED GOVERNMENT DOCUMENTS
 - 1,000-PLUS PREPARED BIBLIOGRAPHIES
 - COMPUTER ACCESS
- DEFENSE TECHNICAL INFORMATION CENTER (DTIC)
 - UNCLASSIFIED NOTICES OF CHANGES IN CLASSIFICATION, DISTRIBUTION AND AVAILABILITY
- OFFICE OF SECRETARY OF DEFENSE
 - UNCLASSIFIED INDEX OF SECURITY CLASSIFICATION GUIDES
- LIBRARY OF CONGRESS
 - EXCHANGES ALL UNCLASSIFIED DOCUMENTS PRINTED BY GPO

SLIDE 28

THE THREAT TO WESTERN TECHNOLOGY



SLIDE 29



PAPERS NOT PRESENTED AT CONFERENCES ON HIGH SPEED PHOTOGRAPHY AND OPTICS

- SHIP-TO-SHIP OF LASER TRANSMISSION
- AUTOMATIC CLASSIFICATION OF INFRARED SHIP IMAGERY
- AN OVERVIEW OF NAVY ROBOTICS
- ADVANCED AUTOMATION FOR THE BATTLEFIELD
- COMPRESSION OF FORWARD LOOKING INFRARED IMAGERY

SLIDE 30

THE THREAT TO WESTERN TECHNOLOGY



**PAPERS NOT PRESENTED AT CONFERENCES
ON HIGH SPEED PHOTOGRAPHY
AND OPTICS**

- RECONNAISSANCE IN THE F-18 AIRCRAFT
- INFRARED DIGITAL IMAGERY SYSTEM FOR CHARACTERIZING BATTLEFIELD EVENTS
- REALTIME IMAGING MISSILE TRACKER SIMULATION
- INTEGRATION OF AIRCRAFT AND SATELLITE IMAGERY
- HIGH-SPEED PHOTOGRAPHY OF FLAMING ALUMINUM PARTICLES PRODUCED BY A ROCKET PROPELLANT IN AN ACCELERATION FIELD

SLIDE 31



THE THREAT TO WESTERN TECHNOLOGY

DIA7238A

U.S./USSR STUDENT EXCHANGE

- 40 SOVIET GRADUATE STUDENT/YOUNG FACULTY
 - 90% PhD EQUIVALENTS
 - 33-35 YEARS OLD
 - 8 YEARS EXPERIENCE
 - 90% SCIENCE OR ENGINEERING
- 15 SOVIET SENIOR SCHOLARS
 - DOCTORS OF SCIENCE
 - APPLICATION ORIENTED
- SIMILAR PROGRAMS WITH EASTERN EUROPE

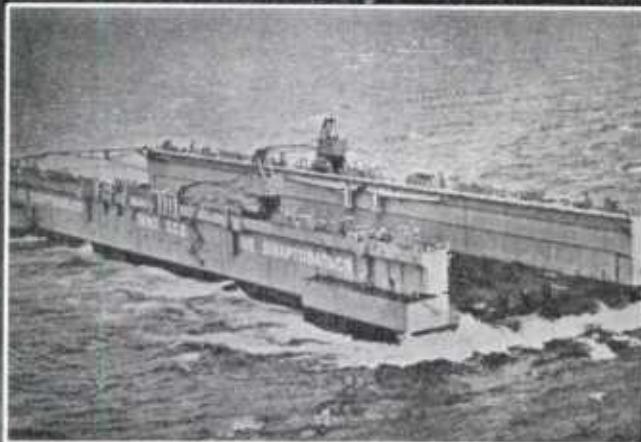
SLIDE 32



THE THREAT TO WESTERN TECHNOLOGY

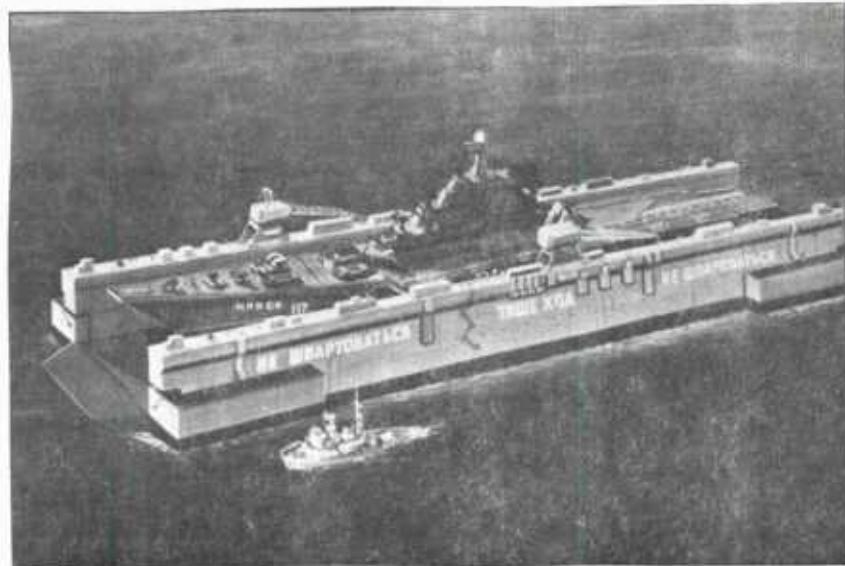
DIA7238A

Soviet Floating Dry Dock

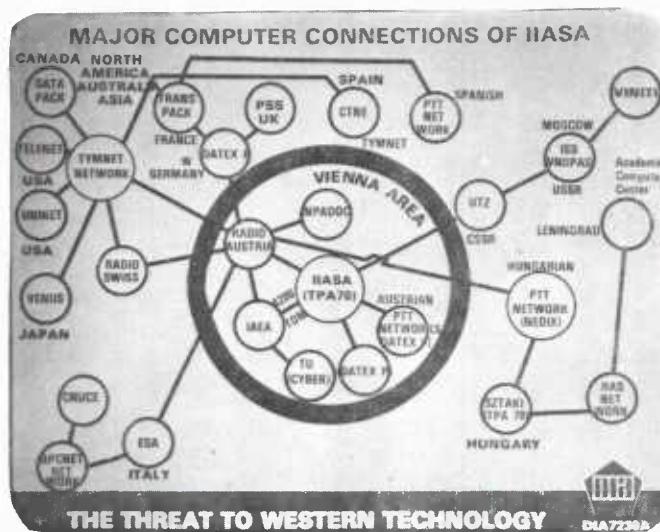


SLIDE 33

SLIDE 34



SLIDE 35



SLIDE 36

Clandestine Means of Acquiring Technology

- Industrial Espionage
- Electronic Eavesdropping
- Diversion of Exports
- Smuggling

USSR Works Through Warsaw Pact Intelligence and Foreign Trade Offices



SLIDE 37

The Soviets Use Espionage to Acquire Technology



SLIDE 38

WILLIAM H. BELL—SPY

- COOPTED BY POLISH INTELLIGENCE OFFICER ACTING UNDER COVER AS VICE PRESIDENT OF POLAMCO
- AMONG DOCUMENTS COMPROMISED
 - F-15 LOOK-DOWN-SHOOT DOWN RADAR
 - ALL-WEATHER RADAR FOR TANKS
 - INFORMATION ON TOW ANTI-TANK MISSILE
 - PHOENIX AIR-TO-AIR MISSILE
 - QUIET RAOAR
- BELL RECEIVED \$110,000
- VALUE OF INFORMATION TO POLES AND SOVIETS—
 - HUNDREDS OF MILLIONS OF DOLLARS IN R&D ALONE

SLIDE 39

THE THREAT TO WESTERN TECHNOLOGY



SLIDE 40



The Soviets Acquire Technical Information Through Electronic Eavesdropping

SLIDE 41



The Soviets Acquire Technical Information Through Electronic Eavesdropping

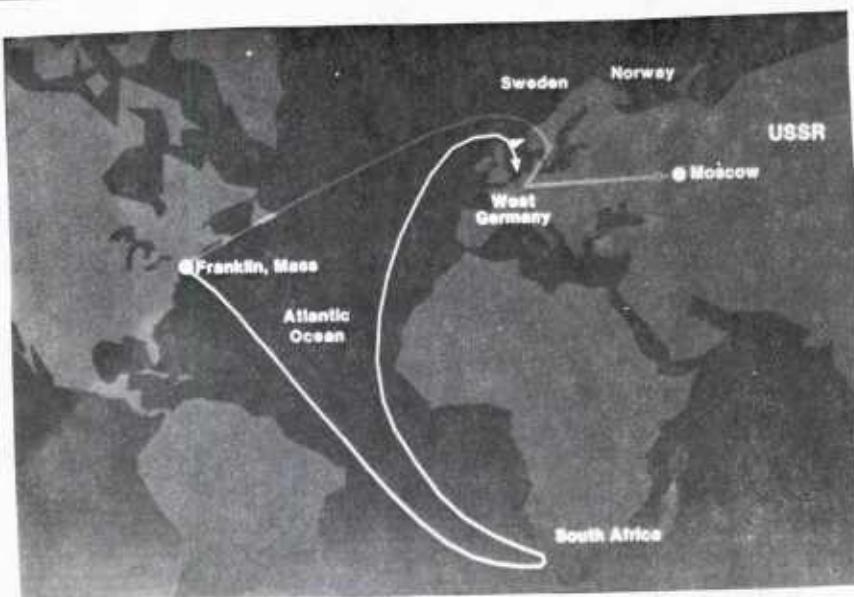
SLIDE 42



The Soviets Gain Technology Through Diversion

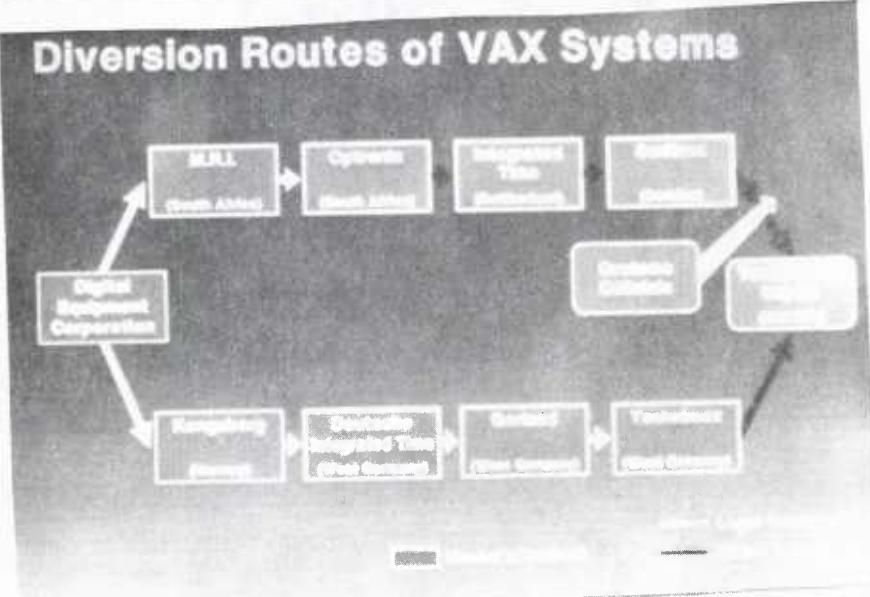


SLIDE 43



SLIDE 44

Diversion Routes of VAX Systems



SLIDE 45

SLIDE 46



SLIDE 47

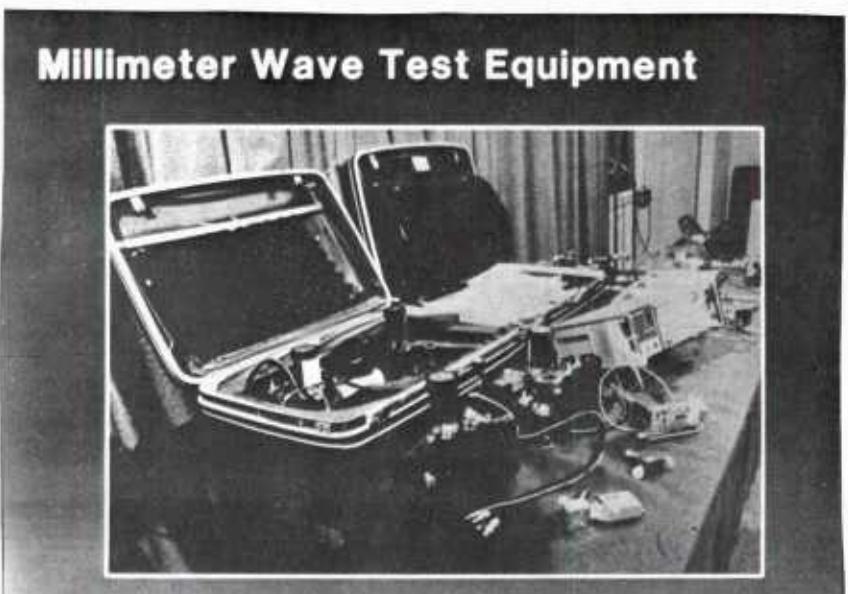
Illegal Diversions of High Technology Equipment to the USSR

Seized Microcircuit Manufacturing Equipment

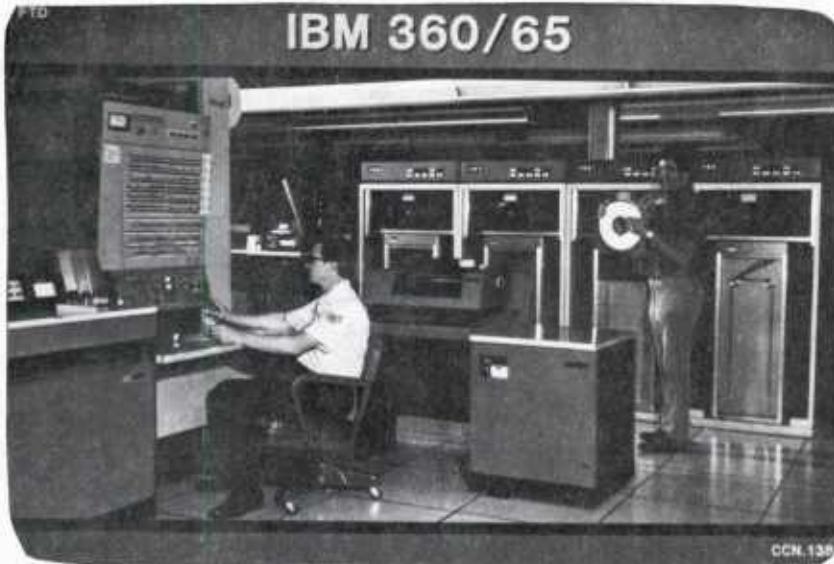


- Caught by U.S. Customs
- Used for Epitaxial Growth of Various Layers on Wafers to Make Microchips

SLIDE 48



FTD
IBM 360/65



SLIDE 49

FTD
SOVIET ES-1020



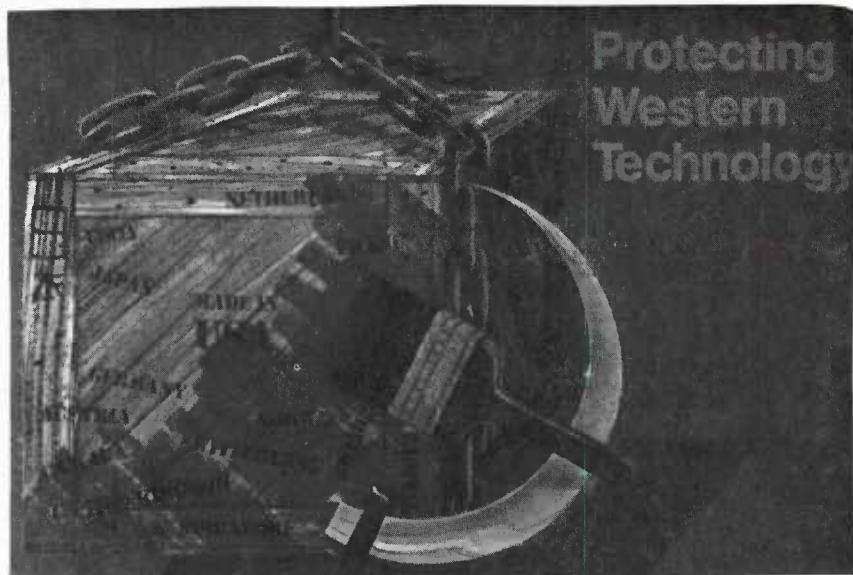
SLIDE 50



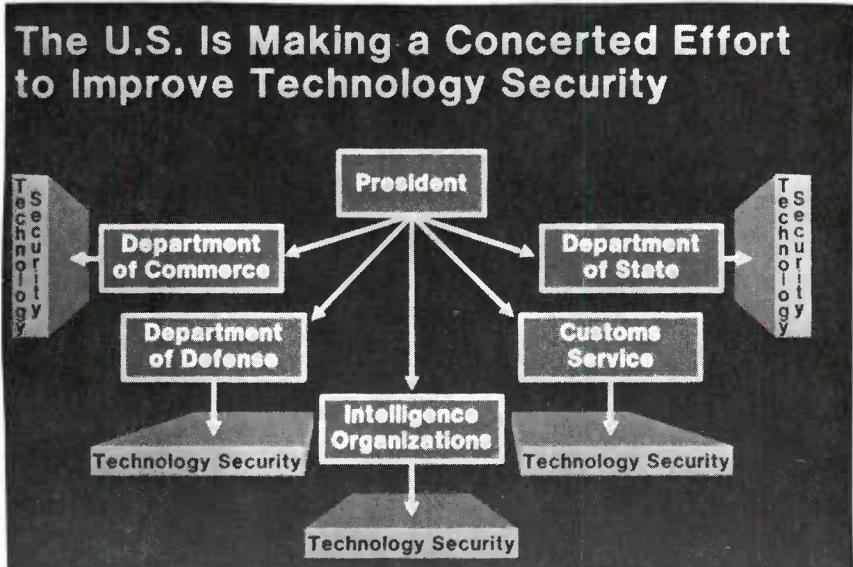
SLIDE 51

"Reprinted by permission: Tribune Media Services, Inc."

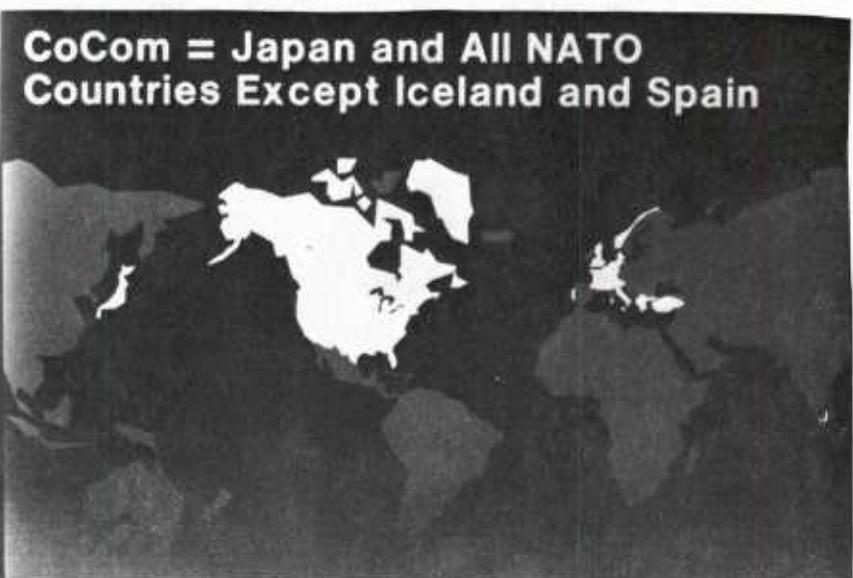
SLIDE 52



SLIDE 53



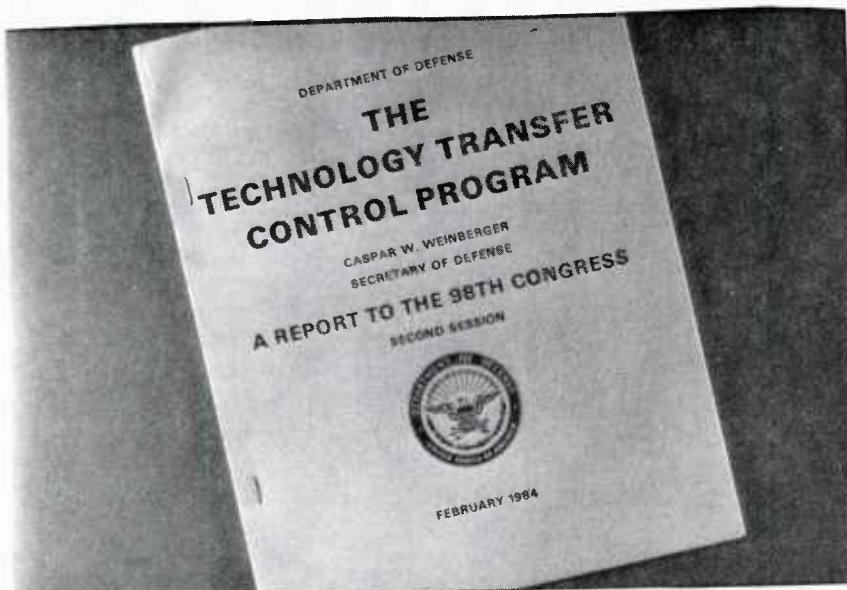
SLIDE 54



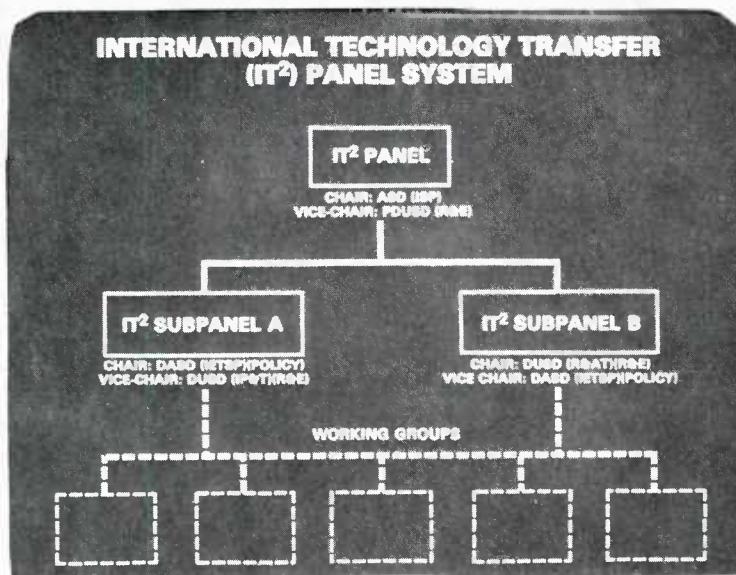
U.S. EXPORT CONTROL STRUCTURE

LAW	EXPORT ADMINISTRATION ACT	ARMS EXPORT CONTROL ACT
ADMINISTERED BY	DEPARTMENT OF COMMERCE	STATE DEPARTMENT
IMPLEMENTED BY	EXPORT ADMINISTRATION REGS	INTERNATIONAL TRAFFIC IN ARMS REGS
ESTABLISHES A	COMMODITY CONTROL LIST (DUAL USE ITEMS)	MUNITION LIST (MILITARY ITEMS)
CONTROLLED BY	VALIDATED & GENERAL LICENSES CRIMINAL PENALTIES	APPROVALS EXEMPTIONS CRIMINAL PENALTIES

SLIDE 55

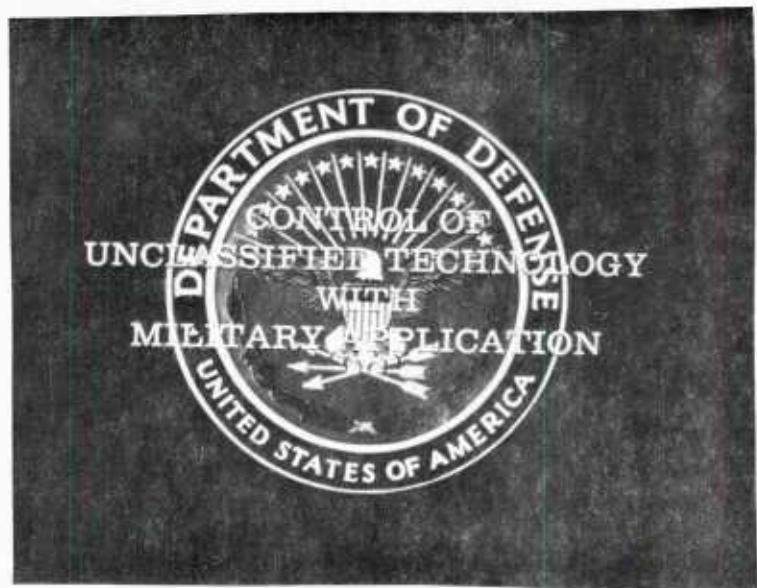


SLIDE 56

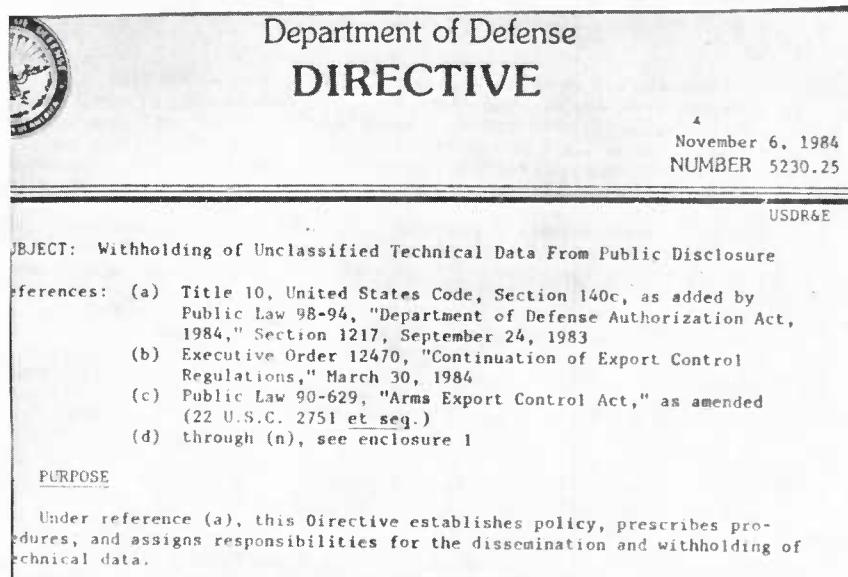


SLIDE 57

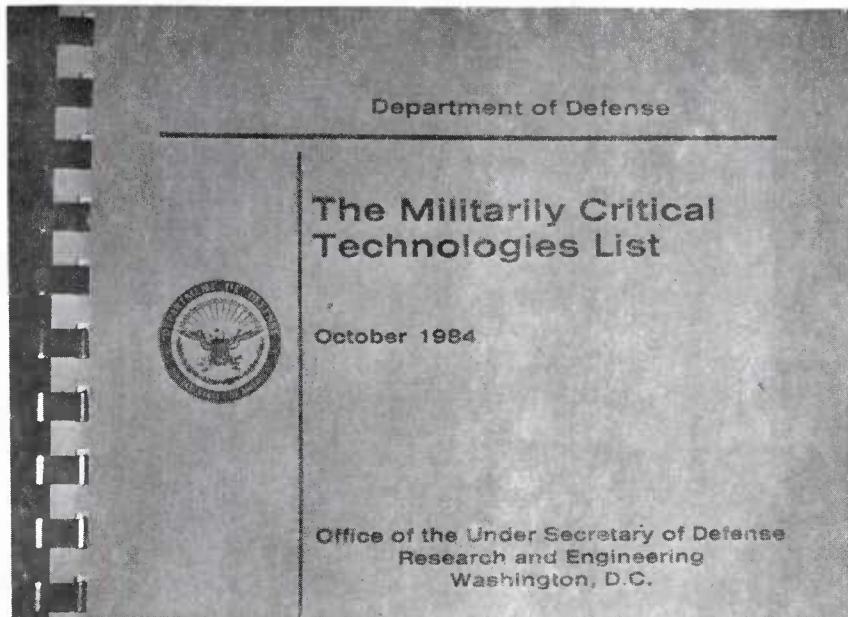
SLIDE 58

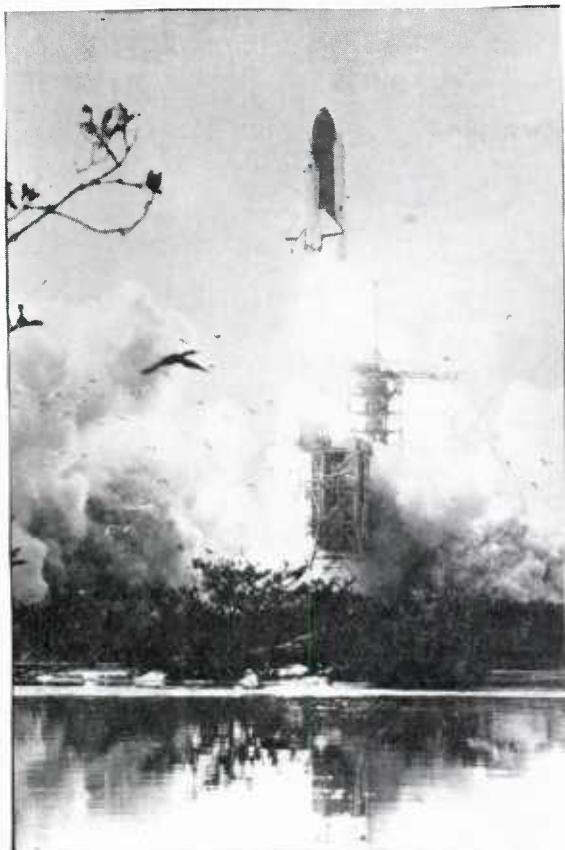


SLIDE 59

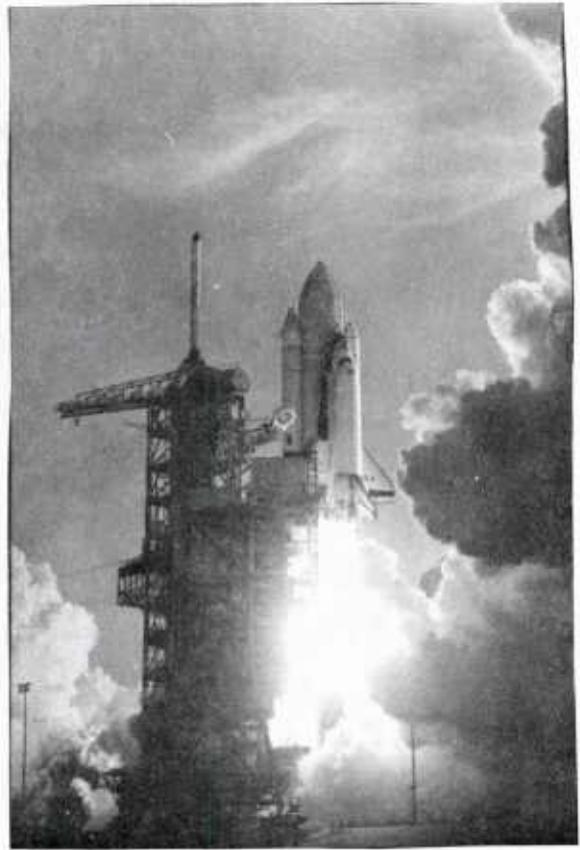


SLIDE 60





SLIDE 61



SLIDE 62



SLIDE 63

SLIDE 64



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